DOCUMENT RESUME

ED 460 223 UD 034 675

AUTHOR	McLain, Barbara; Thompson, Madeleine
TITLE	Educational Opportunities in Washington's High Schools under State Education Reform: High School Responses to Expectations for Change. Final Report.
INSTITUTION	Washington State Inst. for Public Policy, Olympia.
REPORT NO	Doc-01-09-2201; Vol-2
PUB DATE	2001-09-00
NOTE	120p.; For Volumes 1 and 3, see UD 034 674 and UD 034 676.
AVAILABLE FROM	Washington State Institute for Public Policy, 110 East Fifth Avenue, Suite 214, P.O. Box 40999, Olympia, WA 98504-0999. Tel: 360-586-2677; Fax: 360-586-2793; Web site: http://www.wsipp.wa.gov.
PUB TYPE	Numerical/Quantitative Data (110) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	*Educational Change; *Educational Opportunities; *Educational Policy; Graduation; Graduation Requirements; *High Schools; Higher Education; Planning; Portfolios (Background Materials); Public Schools; Relevance (Education); State Standards; Teacher Expectations of Students
IDENTIFIERS	Certificate of Initial Mastery; Oregon; *State Policy; *Washington

ABSTRACT

This report describes educational programs and opportunities available to Washington state's high school students, emphasizing changes brought about by the state's education reform. Information came from surveys and interviews with teachers, students, and parents and state and national data. The study examined whether high schools were increasing the rigor of what students learned, making learning more relevant for students, and providing learning options for 11th and 12th grades (e.g., Advanced Placement and vocational-technical education). Most Washington high schools are increasing rigor by emphasizing state standards and changing graduation requirements. Most are developing portfolios, culminating projects, educational pathways, and educational plans to help students plan for post-high school transition. National research is not conclusive about whether such efforts are effective. Most learning options identified in statute for 11th and 12th grade were readily available statewide. It is not clear how the Certificate of Mastery and other graduation requirements will influence learning options. Eleven appendices include information on survey responses, case studies, state support of remediation for students at risk of failing graduation tests, state adjustments to standards-based graduation tests, Oregon's Certificates of Mastery, career academies, grants, college level learning enrollment, student demographics in college level learning, state support for college level learning, and a glossary of school-to-work terms. (SM)

Reproductions supplied by EDRS are the best that can be made
from the original document.

UD

ED 460 223

Educational Opportunities in Washington's High Schools Under State Education Reform:
High School Responses to Expectations for Change

VOLUME 2
FINAL REPORT

Barbara McLain
and
Madeleine Thompson

September 2001

**Washington State
Institute for
Public Policy**

UD034675

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

B. McLain
Washington State Institute
for Public Policy
TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Educational Opportunities in Washington's High Schools Under State Education Reform:

High School Responses to Expectations for Change

VOLUME 2
FINAL REPORT

Barbara McLain
and
Madeleine Thompson

September 2001

Washington State Institute for Public Policy
110 East Fifth Avenue, Suite 214
Post Office Box 40999
Olympia, WA 98504-0999
Telephone: (360) 586-2677
FAX: (360) 586-2793
URL: http://www.wsipp.wa.gov
Document Number: 01-09-2201

WASHINGTON STATE INSTITUTE FOR PUBLIC POLICY

Mission

The Washington Legislature created the Washington State Institute for Public Policy in 1983. A Board of Directors—representing the legislature, the governor, and public universities—governs the Institute, hires the director, and guides the development of all activities.

The Institute's mission is to carry out practical research, at legislative direction, on issues of importance to Washington State. The Institute conducts research activities using its own policy analysts, academic specialists from universities, and consultants. New activities grow out of requests from the Washington legislature and executive branch agencies, often directed through legislation. Institute staff work closely with legislators, as well as legislative, executive, and state agency staff to define and conduct research on appropriate state public policy topics.

Current assignments include projects in welfare reform, criminal justice, education, youth violence, and social services.

Board of Directors

Senator Karen Fraser
Senator Jeanine Long
Senator Betti Sheldon
Senator James West
Representative Ida Ballasiotes
Representative Jeff Gombosky
Representative Helen Sommers
Representative Steve Van Luven

Dennis Braddock, Department of Social and Health
Marty Brown, Office of Financial Management
Douglas Baker, Washington State University
David Dauwalder, Central Washington University
Marsha Landolt, University of Washington
Thomas L. "Les" Purce, The Evergreen State College
Ken Conte, House Office of Program Research
Stan Pynch, Senate Committee Services

Staff

Roxanne Lieb, Director
Steve Aos, Associate Director

CONTENTS

Executive Summary 1

Introduction 7

I. Overview: What Is Expected of Washington's Public High Schools? 9

II. Are High Schools Increasing the Rigor of What Students Learn? 13

III. Are High Schools Making Learning More Relevant for Students? 31

IV. Are High Schools Providing Learning Options for 11th and 12th Grades? 47

Conclusion 69

Appendices

- Appendix A: Responses to High School Surveys A-1
- Appendix B: Case Studies of Eight High Schools B-1
- Appendix C: State Support of Remediation Due to State Standards or Graduation Tests C-1
- Appendix D: State Adjustments to Standards-Based Graduation Tests D-1
- Appendix E: Oregon State's Certificates of Mastery E-1
- Appendix F: Career Academies F-1
- Appendix G: Gates Foundation Grants for Redesigning High Schools G-1
- Appendix H: College-Level Learning Enrollment: Technical Appendix H-1
- Appendix I: Student Demographics in College-Level Learning I-1
- Appendix J: State Support for College-Level Learning J-1
- Appendix K: Glossary of School-to-Work Terms K-1

The 2000 Legislature enacted Engrossed House Bill 2487. Section 607(4) of the bill directed the Washington State Institute for Public Policy to conduct a study of public high school programs in Washington and report its findings in an interim and final report. The interim report (Volume 1), completed in January 2001, provided information on high school student outcomes and identified national trends in high school reform. This report (Volume 2) describes educational programs and opportunities available for high school students, with a special emphasis on how these programs and opportunities are changing as a result of the state's education reform. Volume 3 contains detailed summaries from eight case study high schools, including the perspectives and opinions of educators, students, and parents.

BEST COPY AVAILABLE

Policy Advisory Committee

Brian Benzel
Chief Operating Officer
Seattle School District

Pat Eirish
Manager of Research and Assistance
State Board of Education

Sue Goodrich
Teacher
Central Valley High School
Central Valley School District

Bruce Hawkins
Superintendent
Columbia School District

Nancy Hough
Teacher
Ferris High School
Spokane School District

Thelma Jackson
Parent/Educational Consultant

Dennis Kampe
Director, Clark County Skills Center

Kyra Kester
Director for Secondary Education
and Career Preparation
Office of the Superintendent of Public Instruction

Bruce McBurney
Director of Professional-Technical Education
Central Kitsap School District

Bob McMullen
Principal, Kamiakin High School
Kennewick School District

Terry Parker
Principal, Enumclaw High School
Enumclaw School District

Doug Scrima
Senior Policy Associate
Higher Education Coordinating Board

Michaele Sein-Ryan
Counselor, Puyallup High School
Puyallup School District

Dave Trapp
Sequim High School Science Teacher
Sequim School District

Tim Washburn
Executive Director of Admissions and Records
University of Washington

Jan Yoshiwara
Director Educational Services
State Board for Community and Technical Colleges

Technical Advisory Committee

Jerry Gilmore
Director
Office of Educational Assessment
University of Washington

Dave Pavelchek
Research Associate
Social and Economic Sciences Research Center
Washington State University

Loretta Seppanen
Senior Research Manager
State Board for Community and Technical Colleges

Deb Merle
Senior Research Analyst
Office of the Superintendent of Public Instruction

Edie Harding
Governmental Affairs Director
The Evergreen State College

EXECUTIVE SUMMARY

Background

The 2000 Washington State Legislature directed the Washington State Institute for Public Policy (Institute) to study public high school programs in Washington:

> *The study shall examine what high school educational opportunities are currently available for students. Information shall be gathered on program attributes, student demographics, and outcomes for high school programs including, but not limited to, college credit (e.g., advanced placement and running start), tech prep, distance learning, and career pathways.*[1]

The Institute published an interim report in January 2001, and this is the final report. To complete the reports, the Institute conducted a statewide survey of public high schools; interviewed educators, students, and parents at eight case study schools; reviewed national research literature; and analyzed state and national data.

Overview: What Is Expected of Washington's Public High Schools?

Expectations From the State. Washington's education reform represents a shift in expectations: high schools will be required to ensure that *all* students, not just college-bound students, master high-level standards. The Essential Academic Learning Requirements (EALRs) define what all students are expected to know and do, and the Washington Assessment of Student Learning (WASL) measures student performance on some of those standards. By 2008, high school students will be expected to pass the WASL to earn a Certificate of Mastery, but this is not the only requirement for graduation. High schools are also expected to provide educational pathways for students to explore and prepare for educational and career opportunities after high school.

Expectations Based on National Criticisms of High Schools. Nationally, high schools have been criticized for insufficient academic rigor in the curriculum or graduation requirements. Employers say high schools are not adequately preparing students to enter the workforce or be employed in a changing economy. Surveys of students indicate they are not motivated toward academic achievement and believe what they learn in school is not relevant to their current interests or future plans.

The following questions are addressed in this final report:

- **Are High Schools Increasing the Rigor of What Students Learn?**
- **Are High Schools Making Learning More Relevant for Students?**
- **Are High Schools Providing Learning Options for 11th and 12th Grades?**

---

[1] Chapter 1, Laws of 2000 (EHB 2487 §607(4)).

BEST COPY AVAILABLE

Are High Schools Increasing the Rigor of What Students Learn?

Most high schools that responded to the Institute's survey are increasing rigor by focusing on state standards and changing graduation requirements.

- Study participants report a positive impact from having the EALRs serve as a common framework for curriculum and instruction.
- More than 80 percent of high schools reported some or a lot of change to the 9th and 10th grade curriculum to incorporate the EALRs into courses.
- More than 60 percent of high schools reported extensive curriculum changes in English and math. Less activity is occurring in subjects that are not yet tested on the WASL.
- To align with state standards, nearly two-thirds of high schools are actively or very actively making multiple changes in curriculum and assessment.
- Just over 60 percent of high schools report recent or planned changes in local graduation requirements, including adding credits in English and math and requiring culminating projects.

However, the effect of this increased rigor is unknown, particularly for students who will have difficulty meeting state standards.

- Half the high schools reported creating new courses to assist 9th and 10th grade students in preparing for the WASL. Because the WASL is not yet a graduation requirement, less than 30 percent of high schools are creating remedial courses for students who do not pass the WASL in 10th grade.
- To assist struggling students, more than 70 percent of high schools reported some or a lot of use of alternative programs, extended learning, early identification of at-risk students, and in-class assistance. None of these strategies is used extensively by more than one-third of high schools.
- High schools are concerned about remediation and its possible impact on the curriculum and learning options for students. It is not known what effect increased expectations will have on high school dropout rates.
- Parents, educators, and students express concerns about relying on the WASL as a graduation requirement. Students in the case study schools admitted they do not take the WASL seriously.
- Of the 27 other states planning a standards-based assessment for high school graduation, some have delayed their timelines and others are creating alternative ways for students to earn a diploma.

Are High Schools Making Learning More Relevant for Students?

Most high schools responding to the survey are developing portfolios, culminating projects, educational pathways, and educational plans to help students plan for the transition after high school.

- Two-thirds of high schools currently use portfolios and just over half currently use culminating projects. Under new graduation requirements adopted by the State Board of Education (SBE), all students will complete a culminating project in 2008.
- Two-thirds of high schools report they provide educational pathways where students can choose courses and explore future options around a career theme.
- Nearly 60 percent of high schools have students prepare a plan for their high school education, and more than 70 percent have students develop a post-high school plan. In 2008, all students will prepare these plans under SBE graduation requirements.
- Nearly 60 percent of high schools are actively or very actively implementing portfolios, projects, pathways, and plans simultaneously.
- About half of high schools are trying to create smaller learning communities by organizing small cohorts of students and teachers.

However, more work is needed if these activities are to reach all students. The degree of implementation varies.

- In one-third of high schools responding to the survey, all seniors prepare culminating projects.
- Less than one-fourth of high schools reporting the use of portfolios, projects, or educational pathways currently involve all students in these activities.
- Forty percent of schools are actively or very actively implementing educational pathways through such strategies as staff training, course modification, and creating special projects and activities for students.
- The case studies suggest that, to be effective, activities to make learning more relevant must be integrated throughout the high school curriculum. High schools report it takes a great deal of time, effort, and commitment to achieve integration and make activities meaningful for students.

National research is not conclusive about whether portfolios, culminating projects, or educational pathways are effective.

- The success of strategies to make learning more relevant and assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. However, there is currently no complete and accurate way to identify what happens to high school graduates in Washington.

Are High Schools Providing Learning Options for 11th and 12th Grades?

Most learning options identified in statute for 11th and 12th grades are readily available in high schools across the state.

- The statute pertaining to the Certificate of Mastery lists a number of learning options for 11th and 12th grade students, such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education. More than two-thirds of high schools report that at least five out of eight 11th and 12th grade learning options are readily available or available with minor difficulty.
- Running Start and Tech Prep are the most accessible options, with more than 60 percent of high schools reporting ready availability. College in the High School and distance learning are the least available options (readily available in less than 30 percent of high schools).

However, less is known about the extent of student participation in these options. National and state research do not provide a clear indication that one option is more effective than others.

- Enrollment of Washington high school students in college-level learning (Advanced Placement, Running Start, and College in the High School) is growing and could total one-quarter of the state's 11th and 12th grade students. Some groups of students (Caucasian, Asian-American) are more likely to enroll in college-level learning than others.
- Baseline data suggest that 15 percent of graduates complete a sequence of vocational courses or take college-level training through Tech Prep.
- Data about student participation in work-based learning, distance learning, and alternative education is not comprehensive.
- Studies have found some positive results (using a variety of measures) for students who participate in Running Start, take integrated academic-vocational courses, complete a sequence of vocational courses, or participate in School-to-Work activities. Each option attracts different students based on their interests and plans.

It is not clear how the Certificate of Mastery will influence learning options for 11th and 12th grades.

- High schools are concerned that providing additional assistance for students who do not pass the WASL in 10th grade could limit their ability to offer activities and options for students.
- Although the Certificate of Mastery is not the only requirement for high school graduation, it is the most clearly defined and highly publicized expectation for high schools and students.
- Additional measures of state accountability for high schools have not been developed.

What Additional Steps Could Policymakers Take to Influence Education Reform in High Schools?

Based on the research literature and study findings, the Institute cannot recommend any single program or activity over others for state funding and support. However, policymakers have the following opportunities to influence further implementation of education reform in high schools:

- **Monitor trends or decisions regarding:**
    - What happens to high school dropout rates.
    - What happens to students after they graduate.
    - How the SBE assures that all students have an opportunity to learn state standards before the WASL becomes a graduation requirement.
- **Obtain additional information regarding:**
    - What models of assistance to struggling students are successful in high schools.
    - Enrollment and effectiveness of alternative education programs and strategies.
    - How successful are grant-funded initiatives to create smaller learning communities in high schools.
- **Debate or discuss further:**
    - Whether adjustments or alternatives to the WASL should be explored.
    - Level of state direction, guidance, or assistance for culminating projects, educational plans, and educational pathways.
    - Whether high schools should be held accountable by the state for other student outcomes in addition to the Certificate of Mastery.

INTRODUCTION

The 1993 Washington Education Reform Act set high standards for improving student learning. This study explores educational opportunities provided by Washington State public high schools and how these opportunities are changing as a result of the state's education reform and other expectations placed on high schools.

Background

The 2000 Washington State Legislature directed the Washington State Institute for Public Policy (Institute) to study public high school programs in Washington:

> *The study shall examine what high school educational opportunities are currently available for students. Information shall be gathered on program attributes, student demographics, and outcomes for high school programs including, but not limited to, college credit (e.g., advanced placement and running start), tech prep, distance learning, and career pathways.*[2]

This represents the Institute's final report, which is due to the Legislature by September 15, 2001.

Interim Report

In January 2001, the Institute presented an interim report that addressed the following three research questions:

- **National Trends:** ***Why Reform High School?***
- **Public High Schools in Washington:** ***What Are Their Characteristics, and What Are the State's Policies?***
- **High School Student Performance:** ***What Do We Know?***

The interim report provided baseline information on high school student performance using a number of indicators of educational attainment and educational proficiency. The report also described the expectations placed on high schools, with the goal of improving student performance.

---

[2] Chapter 1, Laws of 2000 (EHB 2487 §607(4)).

Final Report

Here we address a fourth research question:

- **High School Reform in Washington:** ***What Educational Opportunities and Programs Are Available for Students?***

This report describes the strategies high schools are using to respond to education reform. It is not possible to describe every activity or reform underway at the hundreds of high schools across the state. However, this report portrays a baseline during a time of significant change. High schools are responding to state education reform, but the Certificate of Mastery and other new requirements have not yet taken effect.

Methodology

In the spring of 2001, the Institute ***surveyed principals of public high schools*** in Washington regarding state education reform and the educational opportunities available for students. A second survey completed by the schools documented student enrollment in college credit classes. The schools that responded to the surveys enroll the majority of high school-aged students in the state. High schools of various sizes, geographic locations, and student demographics are well represented among survey respondents, with the exception of very small high schools and alternative high schools.[3]

In addition, the Institute ***selected eight high schools as case studies:*** Pasco, Moses Lake, Sunnyside, Nathan Hale (Seattle), Sequim, Nooksack Valley, Mark Morris (Longview), and Lake Roosevelt (Grand Coulee Dam). Schools varied by size, geography, student demographics, and experience with implementing education reform.[4] During two-day visits to each school, the Institute interviewed principals, teachers, students, parents, and community members to solicit perspectives and opinions.[5] A summary of each case study is included in Volume 3, *Case Studies of Eight Washington High Schools.*

Data from the Office of the Superintendent of Public Instruction (OSPI) and the State Board for Community and Technical Colleges (SBCTC) was reviewed along with ***national and state research*** on educational programs.

A ***policy advisory committee*** and a ***technical advisory committee*** guided the Institute's work for both the interim and final reports.

---

[3] Of the 328 high schools surveyed, 212 (65 percent) responded to the Principal survey. Two hundred three (62 percent) responded to a second survey with information about student enrollment. Responding high schools enroll 65 percent of high school students in the state. Schools with fewer than 250 students and alternative programs are under-represented among the survey responses. Therefore, the analysis and statistics presented in this report should be interpreted with caution regarding very small or alternative high schools. For additional information on survey response rates, see Appendix A.

[4] See Appendix B for the selection criteria and a brief description of each school.

[5] Over the course of the visits, the Institute interviewed 18 administrators, 185 teachers and staff, 210 students, and 60 parents and community members. Volume 3 presents detailed summaries of each case study.

I. OVERVIEW: WHAT IS EXPECTED OF WASHINGTON'S PUBLIC HIGH SCHOOLS?

Washington's education reform represents a shift in expectations: high schools will be required to ensure that *all* students, not just college-bound students, master high-level standards. High schools are also expected to provide educational pathways and learning options for students.

Nationally, high schools have been criticized for failing to provide sufficient academic rigor in the curriculum and for not adequately preparing students to enter the workforce in a changing economy. Students report they are not motivated and that what they learn in school is not relevant to their current interests or future plans.

This final report examines how Washington's public high schools are responding to multiple expectations from state education reform and the criticisms identified in national research.

Expectations From the State

Washington's education reform is part of a nationwide movement toward standards-based education. Under standards-based education, specific content standards for subject areas are defined that all students are expected to master. Mastery of the standards is demonstrated through formal assessments. This represents a shift in expectations: high schools will be required to ensure that *all* students, not just college-bound students, master high-level standards. High schools are also expected to provide learning options for students, especially those who have received a Certificate of Mastery, that are intended to encourage them to explore and pursue future educational and career opportunities (see Table 1).

Table 1

Washington's Public High Schools and State Education Reform

State Expectations for High Schools	
State Standards	High schools must teach students the knowledge and skills identified in the state's education standards: the four Basic Education goals[6] and the Essential Academic Learning Requirements (EALRs).[7]
Assessment	High school students' performance in meeting the state's standards will be measured using the Washington Assessment for Student Learning (WASL), as well as locally-determined assessments for subjects and content not covered on the WASL. Students will be expected to pass the WASL as part of their graduation requirements.[8]
Learning Options for Students	High schools are expected to develop educational pathways that integrate academic and vocational education and encourage students to explore and prepare for their educational and career opportunities after high school. Educational pathways may include such learning options as work-based learning, School-to-Work transition, Tech Prep, vocational-technical education, Running Start, and college preparation.[9]
Other State Graduation Requirements	The State Board of Education (SBE) recently changed high school graduation requirements to include student completion of an individual education plan and a culminating project.[10]

Expectations Based on Criticisms of High Schools

Parents, educators, prospective employers, colleges, and the general public all have expectations about the purposes of secondary school education. High schools are expected to offer a wide range of courses tailored to the different abilities and interests of students.[11] Over time, students have tended to be separated by choice or counseling into college preparatory, vocational, or general educational "tracks" based on the type and level of difficulty of courses selected.

---

[6] RCW 28A.150.210. Abbreviated version of goals: Goal 1: Read with comprehension, write with skill, and communicate effectively. Goal 2: Know and apply the core concepts and principles of math; social, physical, and life sciences; civics and history; geography; arts; and health and fitness. Goal 3: Think analytically, logically, and creatively, and integrate experience and knowledge to form reasoned judgments. Goal 4: Understand the importance of work and how performance directly affects future career and educational opportunities.

[7] RCW 28A.655.060(3)(a). The State Board of Education revised statewide graduation requirements to reflect the content of the EALRs so that high schools must ensure students have learned and demonstrated the EALRs at Benchmark III (about 10th grade level) before graduation.

[8] Currently, high school students are tested on the WASL for EALRs in reading, writing, communication, and math. After the State Board of Education determines that the WASL is valid and reliable as a graduation requirement, high school students, beginning with the class of 2008, must pass the WASL as part of their requirements to receive a diploma. RCW 28A.655.060(3)(c).

[9] RCW 28A.655.060(3)(c). Students must be allowed to choose any pathway and change it during high school without delaying their graduation.

[10] The new requirements read "Each student shall complete a culminating project for graduation. The project consists of the student demonstrating both their learning competencies and preparations related to learning goals three and four. Each district shall define the process to implement this graduation requirement, including assessment criteria, in written district policy. Each student shall have an education plan for their high school experience, including what they expect to do the year following graduation" WAC 180-51-061. The SBE also encouraged high schools to examine student competencies rather than just the accumulation of seat time and credits.

Due to the economies of scale necessary to offer a diverse curriculum and extra-curricular activities, many high schools have grown quite large. While many people continue to believe high schools should offer a comprehensive curriculum with different levels of difficulty for different students, others have criticized the current organization of the American high school. Table 2 highlights two of the major criticisms of high schools based on national research.

Table 2
High Schools and National Research[12]

Criticisms of High Schools	
Inadequate Rigor	High schools have been criticized for failing to provide sufficient academic rigor in the curriculum or graduation requirements. Too many students take a general course of study with no coherence to their course selection. Large numbers of college-bound students are not prepared for college-level study. Employers believe high schools are not adequately preparing students to enter the workforce or be employed in a changing economy.
Limited Relevance	Students report low motivation toward academic achievement and a sense of limited relevance between school and the world outside the classroom. Studies suggest that to be motivated, students need to connect what they learn in school to their own personal goals. The large size and organization of many high schools has been criticized as a contributing factor for low student interest in learning.

High School Responses

Numerous strategies have been recommended for high schools to change their curriculum, assessment, and graduation requirements as a means of increasing the rigor of a high school education. High schools across the country are experimenting with various ways to make better linkages between what students learn in school and their future plans and goals. High schools are also trying to create smaller, more personal learning communities where students receive more individual attention and are encouraged to explore their individual interests.

---

[11] David Angus and Jeffrey Mirel, *The Failed Promise of the American High School* (New York: Teacher's College Press, 1999), 2.

[12] A summary of the national research on high schools and high school students is contained in the Institute's interim Report, Volume 1, Appendix A. Edie Harding with Mason Burley, Barbara McLain, and Madeleine Thompson, *Educational Opportunities in Washington's High Schools Under State Education Reform: Background and Student Outcomes, Volume 1* (Olympia, WA: Washington State Institute for Public Policy, 2001).

This report examines how Washington's public high schools are responding to multiple expectations from state education reform and the criticisms identified in national research. The following questions are addressed:

- **Are High Schools Increasing the Rigor of What Students Learn?**
- **Are High Schools Making Learning More Relevant for Students?**
- **Are High Schools Providing Learning Options for 11th and 12th Grades?**

II. ARE HIGH SCHOOLS INCREASING THE RIGOR OF WHAT STUDENTS LEARN?

Most high schools surveyed by the Institute are responding to demands for increased rigor by making multiple changes to align curriculum, instruction, and assessment with the EALRs and WASL. Much activity is focused on English and math, less on subjects that are not yet tested on the WASL. High schools are also working to increase the academic and technical rigor of vocational courses. Study participants report a positive impact from having the EALRs serve as a framework for curriculum and instruction.

Because the WASL is not yet a graduation requirement, high schools are currently more focused on preparing 9th and 10th grade students for the WASL and less focused on remediation for 11th and 12th grade students. High schools are concerned about the possible impact remediation could have on the high school curriculum.

Students face increased expectations from the state and local levels for high school graduation. However, there is uncertainty associated with these efforts to increase rigor. It is not known what effect increased expectations will have on high school dropout rates. Parents, educators, and students express concerns about relying on the WASL as a graduation requirement.

Background

Since the 1990s, states have been setting high standards for what students should know and be able to do. Many have increased high school graduation requirements, and some states (including Washington) will be requiring students to demonstrate they have met the state standards in order to graduate. A key assumption behind Washington's education reform is that the four Basic Education goals, the Essential Academic Learning Requirements (EALRs), and the Washington Assessment of Student Learning (WASL) will drive changes throughout the K–12 school system in order to increase the rigor of what students learn. This section provides information on what high schools are doing to achieve this goal.

I. **Changing Curriculum, Instruction, and Assessment.** State standards are intended to shape the content of a school's curriculum, but they may also influence the instructional strategies teachers use to convey the material to students, as well as how student performance is measured. To ensure that increased rigor is expected for all students, high schools need to address both academic and vocational courses.

II. **Providing Assistance to Struggling Students.** The need to provide extra assistance and remediation to students who may have difficulty meeting the state's standards becomes very important if students are expected to pass the WASL and earn a Certificate of Mastery before they can graduate.

III. **Increasing High School Graduation Requirements.** State statute requires that students must earn a Certificate of Mastery for high school graduation but stipulates that the Certificate of Mastery is not the only requirement to earn a diploma.[13] In the fall of 2000, the State Board of Education (SBE) adopted new graduation requirements that will apply to the class of 2008, including that students will earn a Certificate of Mastery by passing the WASL in the four subject areas currently tested: reading, writing, communications, and mathematics.[14] Local school districts have the option to require additional credits or activities for graduation.

I. Changing Curriculum, Instruction, and Assessment

Curriculum

Reading, writing, and aligning the curriculum with the EALRs are the main areas of focus for most high schools. Nearly one-third (31 percent) of high schools responding to the Institute's survey reported reading was a top priority to improve student learning.[15] Almost one-fourth of schools reported a top priority was improving students' writing skills (23 percent). Another significant focus was aligning the high school curriculum with the EALRs: 21 percent of responding high schools said curriculum alignment was a top priority.

Surveyed high schools were also asked to describe the type and degree of change in curriculum for 9th and 10th grades resulting from education reform. Possible responses included "a lot," "some," "a little," "not at all," or "planning."[16] As Figure 1 shows, 82 percent of high schools reported some or a lot of change to the overall curriculum for 9th and 10th grades to incorporate the EALRs into courses. High schools report less activity in adding remedial or other courses or changing the sequence of courses. Few report having to eliminate courses as a result of the state's standards.

---

[13] RCW 28A.655.060. Before the Certificate of Mastery is required for graduation, the SBE must determine that the WASL is valid and reliable for use as a graduation requirement.

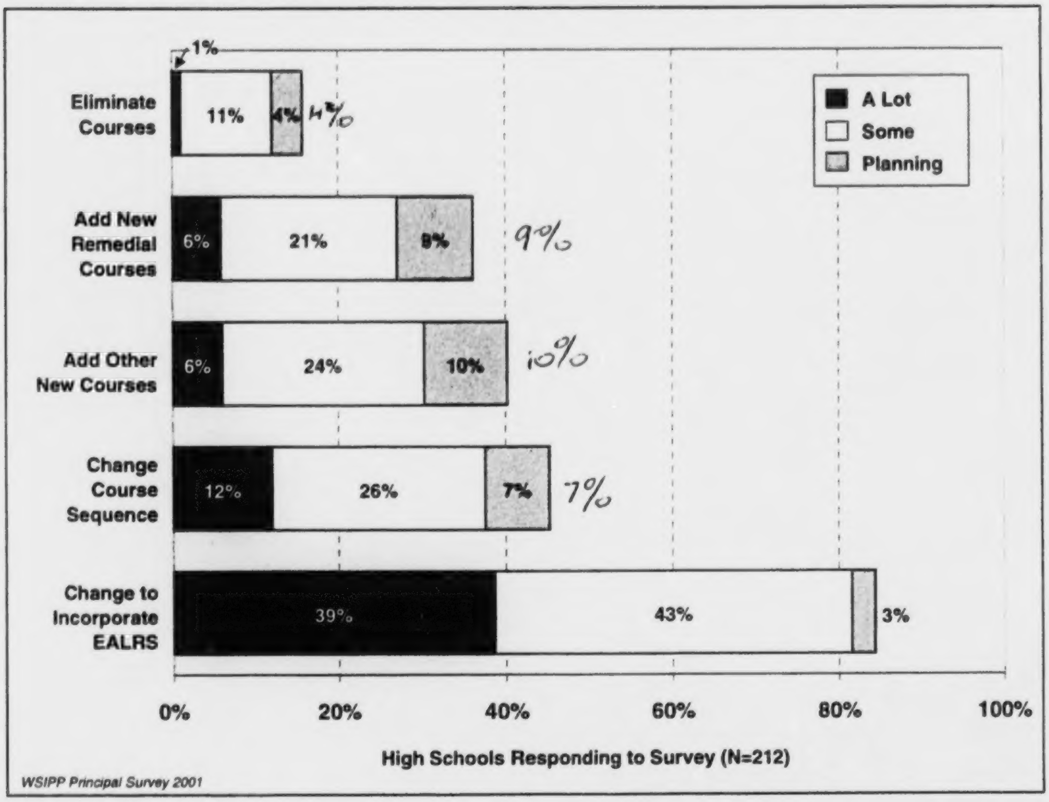
[14] WAC 180-51-063. Additional statewide graduation requirements are described in Section I: Overview.

[15] Washington State Institute for Public Policy (WSIPP) Principal Survey 2001. Analysis based on 197 responses to an open-ended question. Schools were asked to note their top priority to improve student learning, and many responded with more than one answer.

[16] Nearly all questions on the Principal Survey used this five-point scale for responses. Some questions did not include "planning" as a possible response.

Figure 1

What Types of Changes Are Occurring in 9th and 10th Grade Curricula?



WSIPP Principal Survey 2001

Case Study Perspectives[17]

Reading and writing are really "it" right now. It's working well to focus in these two areas, no matter which subject is being taught.

The EALRs help us focus by providing the big picture of what learning is and should be. We know exactly what content we're supposed to be focused on, and we work on that all year long. Even though teachers have different teaching styles, now we are focusing on teaching the same skills. Every inservice seems to focus on the EALRs and WASL.

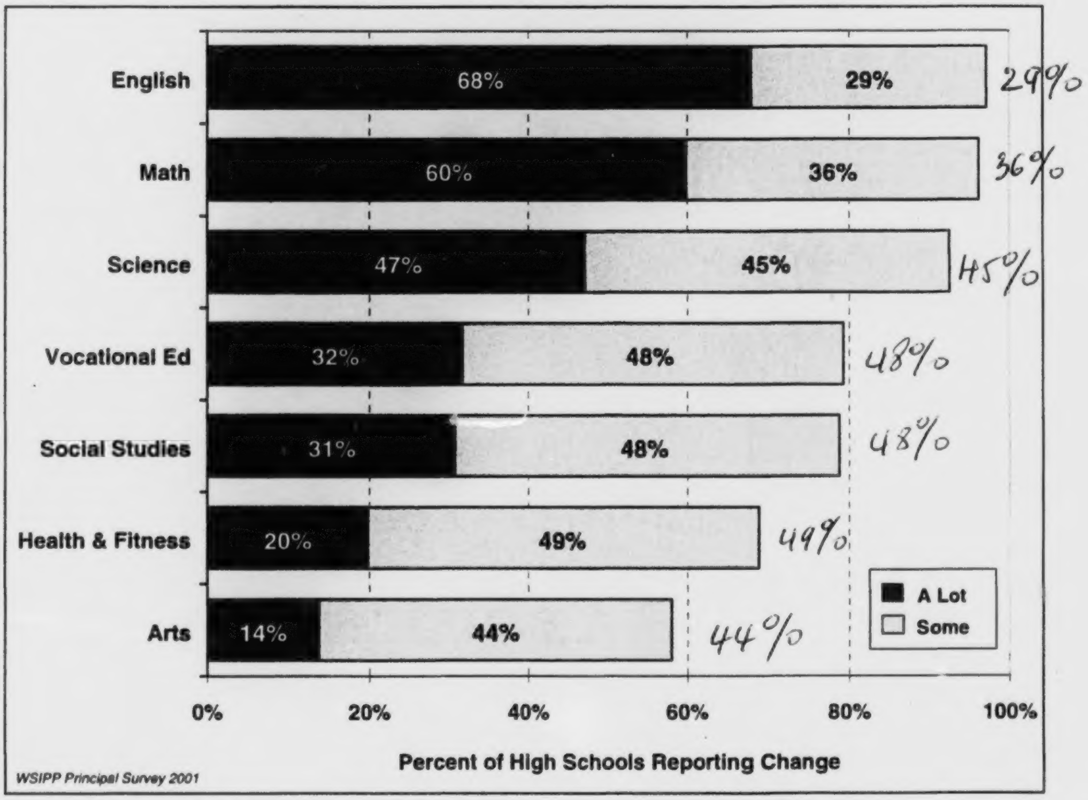
In standards-based education, we can no longer simply give students a grade. We're expected to define a standard and evaluate students' work based on that standard. This form of assessment is a huge shift from grading. It adds another layer of complexity to teaching and learning.

---

[17] The case study perspectives presented in this report are excerpts of comments made by educators, students, or parents from the eight case study schools. The perspectives are a composite of different people from different schools. Complete summaries and comments are in Volume 3: *Case Studies of Eight Washington High Schools.*

High schools are concentrating the most on English and math, followed by science, as they make changes to curriculum in 9th and 10th grades. Currently, the WASL covers reading, writing, communication, and mathematics. More than half the high schools responding to the survey reported making a lot of changes in their English and math curricula to incorporate the content and material required by state standards. Subjects not yet tested on the WASL, such as social studies, health and fitness, and the arts, have received less attention (see Figure 2).

Figure 2
Which Subjects Now Incorporate the EALRs?



WSIPP Principal Survey 2001

High schools are working to increase the academic and technical rigor of vocational courses. Nationally, vocational programs have been criticized for failing to incorporate sufficient academic content in reading and math.[18] In Washington, high schools have been examining vocational education curricula for ways to incorporate state standards in reading, writing, math, and other subjects into vocational courses. Nearly one-third (32 percent) of high schools reported doing a lot to incorporate the EALRs into vocational curricula, and 48 percent reported some activity.

---

[18] Mathematica Policy Research, Inc., *Focus for the Future: The Final Report of the National Tech-Prep Evaluation* (Washington D.C.: U.S. Department of Education, 1998), 5.

There are no EALRs specifically designed for vocational education. Instead, OSPI has been working with high schools to develop vocational program standards based on skills and attributes demanded by employers. In introductory or exploratory courses, students will be expected to demonstrate the EALRs in an applied setting, general employability skills, and knowledge of career options. In more advanced preparatory programs, students will be expected to demonstrate industry-approved skills, participate in work-based learning, and have the opportunity to advance directly into a post-secondary technical program to obtain industry certification.[19] The 2001 Legislature authorized OSPI to begin applying these program standards when approving school districts' vocational education plans.[20]

Instruction and Assessment

In the case study schools, teachers reported that instructional and assessment practices are changing to align with WASL requirements.[21] Teachers participating in the case studies reported a high emphasis on reading and writing in their schools over the past several years. Expanding opportunities for students to write in all subjects (writing across the curriculum), scoring writing samples according to a grading rubric (six-trait writing), and ensuring students practice different types of writing (persuasive, technical, objective) were prevalent in all case study schools.

Math teachers also report having their students spend more time reading and writing. Students are expected to explain their reasoning, investigate hypotheses and draw conclusions, and respond to questions with multiple ways to reach a right answer. These types of instructional and assessment practices have already been documented in Washington's elementary and middle school classrooms;[22] they also appear to be occurring in high schools.[23]

Most principals responding to the survey reported their high schools were using new ways to assess students. Nearly one-fourth (24 percent) of responding high schools reported extensive use of new ways to assess students, and an additional 64 percent reported some use of new assessment strategies. The Institute's survey did not document the many strategies high schools might use to measure whether students are meeting the state's standards. However, how high schools assess students is an important topic for state policymakers because the SBE's new graduation requirements mandate that students demonstrate knowledge and skills at Benchmark III for each EALR, plus any additional content required by the school district.[24] The state must rely on assessments developed at the district, school, and classroom levels to determine whether students have met the state's standards in subjects and content that are not tested on the WASL.[25]

---

[19] Preparatory programs offer a sequence of classes for students to focus on a specific occupation or occupational cluster. Personal communication with Rob Fieldman, OSPI, Secondary Education and Career Preparation, February 23, 2001.

[20] Substitute Senate Bill 5940: Career and Technical Education, 2001 Legislative Session.

[21] The Institute's survey of high schools did not document instructional practices, in part because it would be difficult for principals to give an accurate response covering all teachers and all subjects.

[22] Brian Stecher, et al., *The Effects of the Washington State Education Reform on Schools and Classrooms* (Santa Monica, CA: RAND Corporation, 2000), 60.

[23] In addition to reports from the case study schools, principals in 20 high schools described changes in instruction and assessment in response to an open-ended question about curriculum change. WSIPP Principal Survey 2001.

[24] WAC 180-51-061. Benchmark III refers to the knowledge and skills students are expected to demonstrate at approximately grade 10. An example of a Benchmark III expectation for reading would be "Student reads a full range of texts purposefully and automatically (instructions, news articles, poetry, novels, short stories, professional materials that match career or academic interests)."

Case Study Example[26]

At Pasco High School, all 9th grade students participate in three performance assessments throughout the year. In the fall, students and more than 100 community volunteers participate in "Search and Rescue," a simulated bus accident held in the sports stadium. Students exhibit their knowledge of first aid/CPR, orienteering, graph-reading, note-taking, and report-writing. In the winter, every student participates in a Job Shadow and writes a report about his or her experience. In the spring, "Rocket to the Moon" combines learning about aerodynamics and rocketry, as well as nutrition and life in space, with a launching of student-built rockets in the stadium.

Multiple Changes Underway

Nearly two-thirds of high schools are actively or very actively making multiple changes in curriculum and assessment. The Institute combined high schools' responses to several questions to analyze the cumulative level of activity regarding changes to curriculum and assessment. As Figure 3 shows, 23 percent of high schools reported making a lot of changes in several areas and are described in this cumulative analysis as "very active."[27] Another 41 percent could be considered "active."

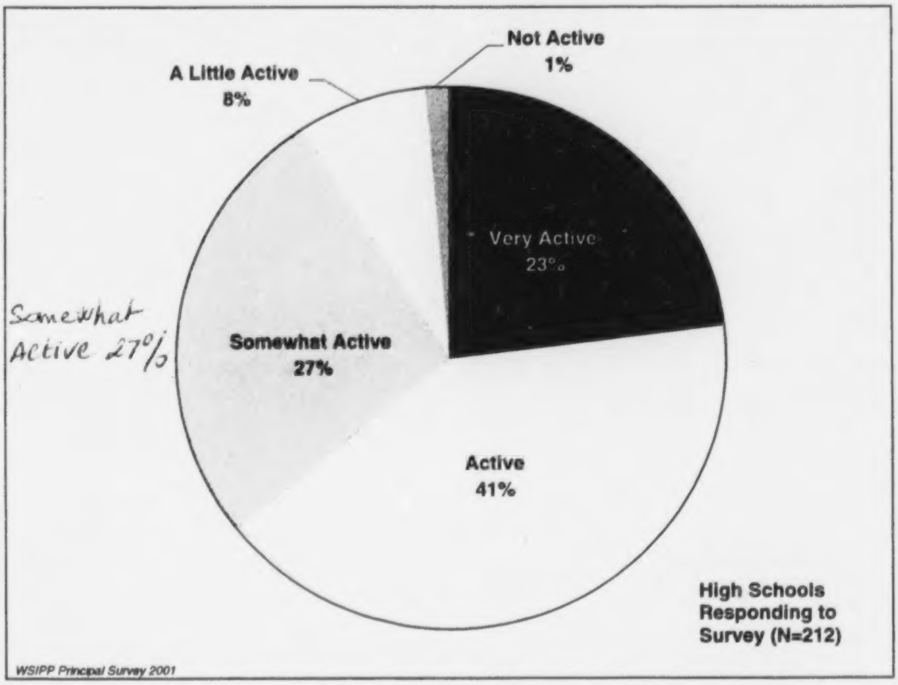
---

[25] In 2001, the Legislature passed 2ESB 5686 which delays implementation dates for adding subjects to the WASL. High school assessments in science were delayed from 2001 to 2004, social studies from 2006 to 2008, arts from 2007 to 2009, and health and fitness from 2007 to 2009. Even where a subject is tested using the WASL, not all EALRs are covered.

[26] The case study examples presented in this report are excerpts of summaries written by Institute researchers based on two-day site visits to eight high schools. Complete summaries and comments are in Volume 3: *Case Studies of Eight Washington High Schools.*

[27] Survey responses for six curriculum and assessment strategies were combined to get a composite score for each high school. The range of possible composite scores (between 5 and 20) was divided into five score groups, and high schools in each score group were assigned a description from "very active" to "not active." The strategies measured included the following: developing new curricula, adopting new ways to assess students, using a common core curriculum, aligning high school curriculum with middle schools, and developing ways to assess student performance on Goal 3 and Goal 4 of the Basic Education Act.

Figure 3
How Actively Are High Schools Changing Curriculum and Assessment?



WSIPP Principal Survey 2001

It has not been determined what degree of assurance is expected from high schools that curriculum, instruction, and assessment align with state learning standards. Research in both Washington and other states suggests that changes in instruction and assessment in response to state standards may not be as extensive as reformers anticipated.[28] However, most studies have only examined elementary and middle schools, indicating more research is needed regarding education reform in high schools. As Washington moves to implement the Certificate of Mastery, a key aspect of the assessment system that must withstand legal scrutiny is consistency between what is tested and what is taught in the schools (curricular validity).[29] The SBE has convened a committee to address reliability and validity issues, but it is not yet known what steps will be taken to verify curricular validity.

---

[28] Council for Basic Education, *Closing the Gap: Implementation, Assessment, and Accountability—The Keys to Improving Student Achievement* (Washington D.C.: Council for Basic Education, 2000), 68-69; Brian Stecher et al., *The Effects of the Washington State Education Reform on Schools and Classrooms* (Santa Monica, CA: RAND Corporation, 2000), 60; and Lynn Olson, "Researchers Identify the Impact of New Jersey Testing on Teaching" *Education Week*, April 18, 2001.

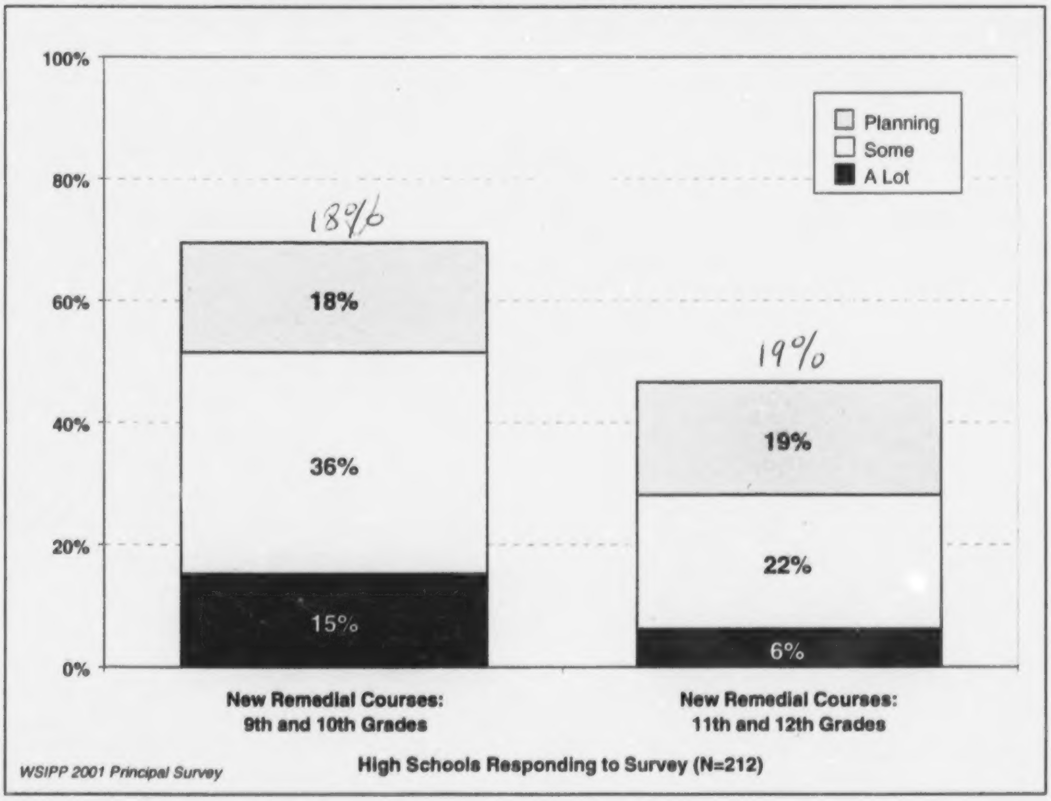
[29] Dane Linn, *High School Exit Exams: Setting High Expectations* (Washington, D.C.: National Governors Association, September 1, 1998), 3. The notion that students must have an opportunity to learn the content of any test required for graduation was litigated in a federal district court case involving the state of Florida: *Debra P. v. Turlington* 730 F. 2d 1405 (11th Cir 1984).

BEST COPY AVAILABLE

II. Providing Assistance to Struggling Students

High schools are focusing on 9th and 10th grade students before 11th and 12th grade students. About half the responding high schools (51 percent) reported creating some or a lot of new courses for 9th and 10th grade students to provide additional assistance in preparing them for the WASL, while 28 percent reported adding classes for 11th and 12th grade students who did not pass the WASL. A similar proportion of high schools are in the planning stages to add preparatory or remedial courses for all grade levels (18 and 19 percent, see Figure 4). High schools anticipate a significant increase in the need for additional assistance and remediation once passing the WASL becomes required for students as part of the Certificate of Mastery.

Figure 4
What Proportion of High Schools Have Created New Courses for Students Struggling to Meet State Standards?

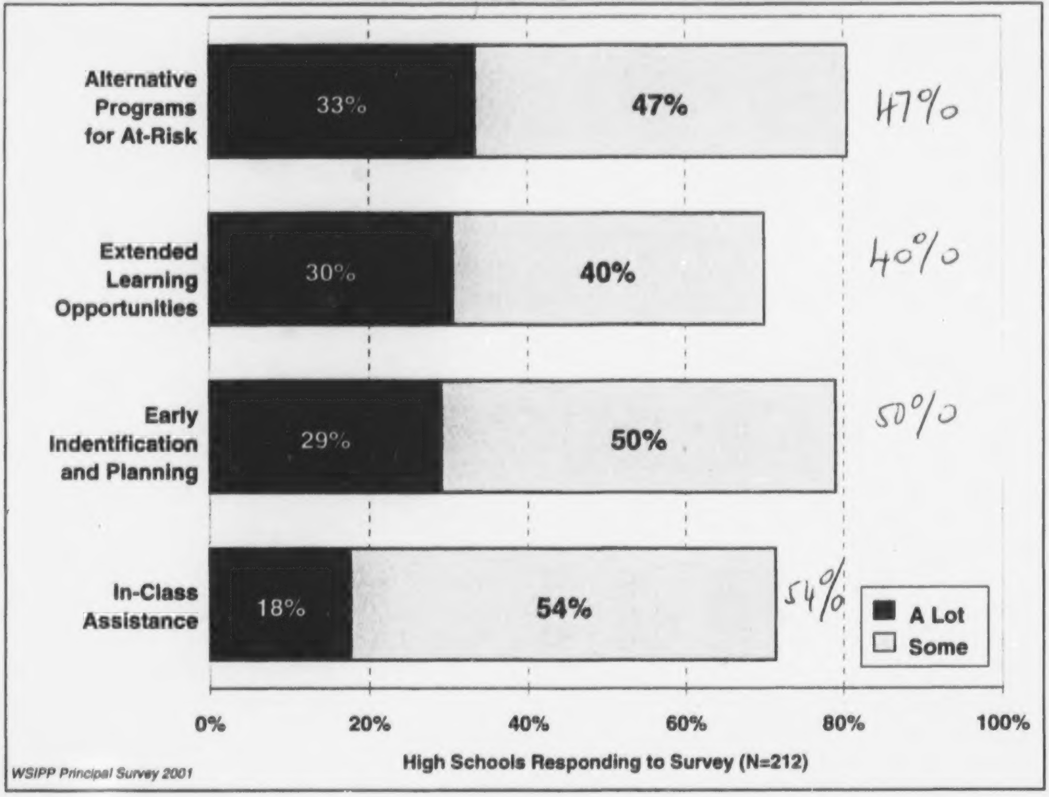


WSIPP 2001 Principal Survey

Consistent with other curriculum changes, high schools are focusing on English and math for new courses to assist struggling students. Nearly 60 percent of high schools reported adding some or a lot of new courses to assist 9th and 10th grade students in English and math compared with less than 25 percent adding these courses in science or social studies. About 12 percent of high schools reported they were planning preparatory or remedial courses in all four subject areas.

High schools are using strategies other than new courses to assist struggling students, *but fewer than one-third report using these strategies* extensively. More than 70 percent of responding high schools reported using strategies such as alternative programs, extended learning, early identification of at-risk students, and in-class assistance (see Figure 5). Many high schools may have initiated these strategies before the state's education reform. However, none of these strategies is currently used extensively by more than one-third of responding high schools.

Figure 5
What Other Strategies Are High Schools Using to Assist Students Struggling to Pass the WASL?



WSIPP Principal Survey 2001

Educators and parents are concerned about the future impact of remediation. It was never expected that all students would be able to meet the state's standards by 10th grade.[30] The movement toward a standards- and performance-based education system requires that schools recognize when students have demonstrated necessary knowledge and skills regardless of how long that takes. Students do not all learn at the same pace. Nevertheless, nearly all case study participants expressed fear that, in the future, electives, honors classes, and other learning options in high schools will be significantly reduced in

---

[30] RCW 28A.655.060 states that "The certificate of mastery shall be obtained by most students at about the age of sixteen. . ."

BEST COPY AVAILABLE

order to create staff time for remedial classes and other assistance for students who do not pass the WASL in 10th grade.

Case Study Perspectives

What kind of schedule are we going to end up with if we have to remediate for the WASL? How do you reconfigure staffing dramatically when the funding level doesn't change? We'll turn into nothing but a big remedial school.

We in education don't have a good track record with remediation. We haven't had to deal with it. We just report on how kids compare to each other. Standards-based reform switches to a student-focused system: What do we have to do to ensure that this child achieves to the standard? This thinking will have to become pervasive, but it hasn't yet.

You can't return kids to the same class for remediation. There needs to be another way, and this has big implications for the future. I foresee having to put our best staff into remediation. That's a real paradigm shift for the top teachers to have to take the toughest students. It hasn't happened yet, but it will.

Some states are attempting to influence the remediation that results from state demands to increase rigor. At least 15 states have passed laws requiring school districts to provide additional assistance and remediation for students who are at risk of failing state graduation tests. Fourteen states support additional assistance for those students with funding for specific programs or through a factor in the state funding allocation formula. For additional information on remediation related to high school graduation tests in other states, see Appendix C.

Washington does not provide funding to school districts specifically related to student performance on the 10th grade WASL. Other funds and programs aimed at assisting struggling students, such as the Learning Assistance Program, Readiness to Learn, and Math Helping Corps, tend to be focused on elementary and middle schools but can also help high school students.[31] Starting in 2001–2002, new funds from Initiative 728 may be used for "extended learning opportunities to improve student academic achievement," and low-performing schools may be eligible for focused assistance.[32]

---

[31] The Learning Assistance Program (LAP) is intended to provide extra assistance to students who are learning below grade level. Funds are allocated to school districts based on the proportion of students scoring in the lowest quartile on nationally standardized tests. In 1999, the Legislature expanded the LAP program to include funding based on low-scoring high school students ($11 million for 2001–2002). Readiness to Learn ($3.6 million) is a grant program that coordinates school and community services, and Math Helping Corps ($1.8 million) deploys mathematics specialists to schools to assist with improving math performance.

[32] Initiative 728 was approved by the voters in 2001 and sets aside funding to support education ($184 million for 2001–2002 and $209 million for 2002–2003); Text of Initiative 728, Section 3 and ESSB 6153, Section 519. Extended learning opportunities include extended school year or school day, before and after school programs, special tutoring, and weekend and summer school programs. The $1 million for focused assistance in 2001–2002 will be used to conduct educational audits and create and implement performance agreements in low-performing schools. ESSB 6153, Section 514(17).

High schools are emphasizing the EALRs in curriculum and individual education plans (IEPs) for special education and limited-English proficient (LEP) students. School districts can make some adjustments to the administration of the WASL to accommodate special education or LEP students, but the overall expectation is that all students should be included in the state's education reform, including the assessment system.[33] Table 3 shows the most common strategies high schools reported using to help special education and LEP students meet the state's learning standards.[34]

Table 3

How Are High Schools Addressing Special Education and LEP Students?

Top Strategies	
Focus on EALRs	• Include EALRs in special education IEPs[35] • Ensure instruction follows IEP • Adapt curriculum and learning expectations to EALRs
Special Instruction	• Provide individualized instruction and assistance • Adapt assignments to students' needs • Offer inclusion or small classes
Change in Courses	• Add special classes • Focus on reading and writing • Increase academic expectations; reduce time spent on generic study skills
Test Accommodations	• Follow IEP to provide assistance in taking the WASL • Use approved alternative assessments
Staff Development	• Encourage collaboration among teachers • Provide additional in-service training

WSIPP Principal Survey 2001 (N=212 high schools responding to survey)

Parents and teachers in the case study schools are also concerned about the impact of the WASL on special education and LEP students. Parents and teachers supported the goal that all students be included in education reform, but they were concerned about whether the WASL would negatively affect the morale of special education and LEP students and possibly their commitment to staying in school. They pointed out that large numbers of these students affect a school's test scores and could lead to an inaccurate portrayal of a school's commitment and progress in improving student learning. The

---

[33] A very limited number of students (1.4 percent of 10th graders in 2000) are exempted from the WASL by their schools. Beginning in 2001, all special education students will take either the WASL or some form of alternative assessment and have their scores reported. Washington allows a limited number of exemptions for LEP students who have spent less than one school year in a school where instruction is in English and who score at the lowest level on an English proficiency test. Office of the Superintendent of Public Instruction, *Guidelines for Participation and Testing Accommodations for Special Populations on the Washington Assessment of Student Learning* (Olympia, WA, June 2000), 5-7.

[34] WSIPP Principal Survey 2001. Based on 180 responses to an open-ended question about specific strategies high schools are using to assist special education and LEP students.

[35] The IEP template required by OSPI asks teachers to record which EALRs are being covered in lesson plans for special education students.

Washington A+ Commission recommended that the percentage of special population students in a school be taken into account when considering needs assessment, focused assistance, recognition, and intensive intervention under a proposed state accountability system.[36]

III. Increasing High School Graduation Requirements

Standards-Based Tests

Educators, parents, and students support clear statewide standards but are less certain about requiring the WASL for graduation. Nearly all case study participants reported a positive impact from having the EALRs serve as a common framework for curriculum and instruction. However, concerns about the WASL were common among participants, such as over-emphasis on a single assessment method and level of difficulty of the test. Educators in the case studies also discussed their inability to use results in a timely and effective manner as a tool to improve learning and the amount of time it takes to administer the test. Nearly one-third of principals responding to an open-ended survey question cited similar concerns with the WASL.[37]

Case Study Perspectives

I think it's reasonable to expect students to pass these tests. I think the WASL pushes staff in the right direction. But the message a single test sends is inconsistent with other messages we receive about creating alternatives for students and adapting to different learning styles. So which message are we supposed to follow? Is the WASL the "end-all" indicator of success and knowledge?

It would be a shame and a disappointment to lower the stakes at this stage. We hope it doesn't slip away. We have focused a lot of energy on the reforms. There have to be other indicators of success besides the WASL and Certificate of Mastery, but don't let the challenges destroy the work that has already been done. Concern about the WASL shouldn't be misinterpreted as opposition to change or opposition to accountability.

Many students do not yet have an incentive to take the WASL seriously. Students in the case study schools were the first to admit that, with no impact on their grades or diplomas, they do not take the WASL seriously. Case study schools maintain that because students are not giving their best effort, low test scores misrepresent high schools to the public and the state. Teachers, students, and parents held widely diverging opinions on whether making the WASL a graduation requirement is an appropriate or effective incentive for students to meet high learning standards.

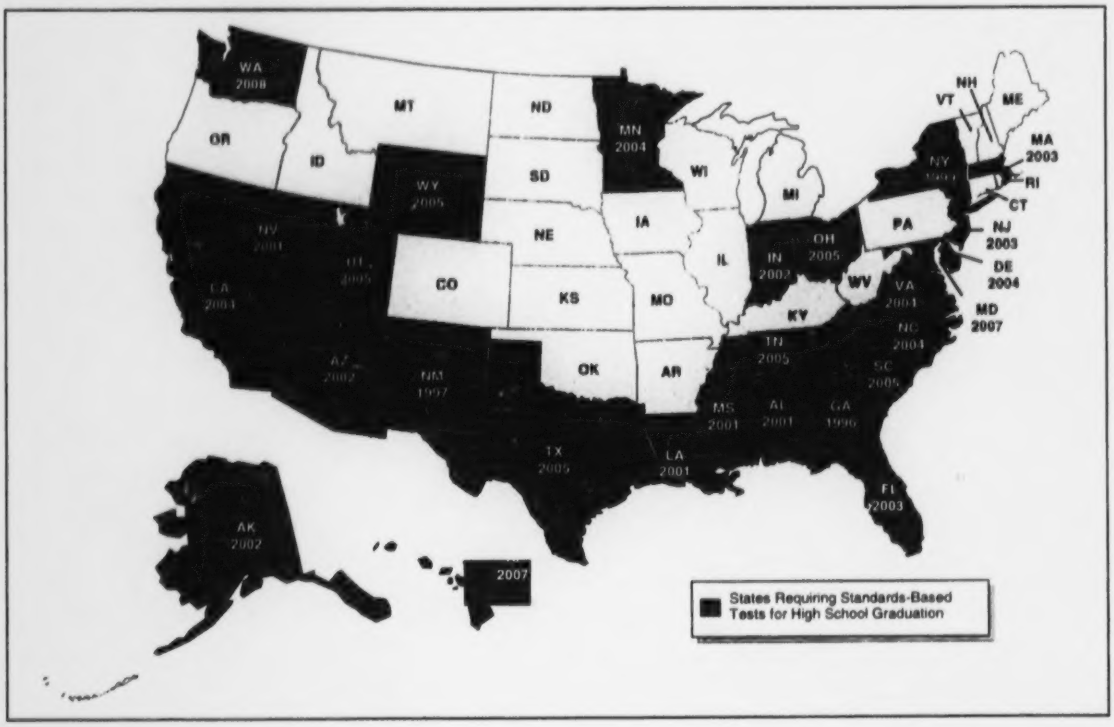
---

[36] The A+ Commission, whose eight members are appointed by the Governor, is charged with developing performance goals for schools and identifying criteria for schools and districts that need additional assistance in meeting the state's expectations under education reform. Washington State Academic Achievement and Accountability Commission, *Accountability System Recommendations* (Olympia, WA, November 2000), 17 and 24.

[37] WSIPP Principal Survey 2001. Forty-eight out of 170 respondents expressed concern with various aspects of administering the WASL or relying on it as a primary state-level assessment method.

Requiring students to pass a test based on statewide standards is relatively new, so the effect on student performance is still largely unknown. More than half the states (27) have introduced or are planning to require tests based on state standards that students must pass to graduate from high school (see Figure 6).[38]

Figure 6
What States Will Require Standards-Based Tests for Graduation?



Some states are changing their testing requirements or creating alternative ways for students to earn a diploma.[39] Of the 27 states with plans to require students to pass a standards-based test, at least six have recently postponed the implementation date, and six have altered the test content or adjusted minimum passing scores.[40] However,

---

[38] Some states have always required students to take an exit exam or a college admissions exam as a graduation requirement. The Institute included only states that have developed tests based on statewide standards for student learning within the last ten years. It is beyond the scope of this report to assess the degree of difficulty of the tests. Other states may have established state standards and developed ways to measure student performance against the standards but are not planning to require a test for graduation.

[39] For additional information on activities in other states, see Appendix D.

[40] Postponements and other alterations occur continually, so this is a conservative estimate and may not be fully up to date. A case study of Oregon is presented in Appendix E. Oregon students must pass a statewide assessment to earn Certificates of Initial and Advanced Mastery but can still receive a high school diploma without passing the assessment.

BEST COPY AVAILABLE

Washington's target date of 2008 is the most distant and was set by the SBE to allow sufficient time to determine reliability and validity of the WASL, as well as recommend modifications. Principals surveyed by the Institute expressed a desire for the state to maintain a consistent message about its commitment and timeline for continuing to implement education reform.[41]

At least seven states have created or are considering allowing students an alternative way to earn a diploma that does not require passing the state graduation test, either through a waiver process or allowing an alternative demonstration of knowledge and skills.[42] Five states offer a special diploma for high-performing students.

Credits, Courses, and Activities

Local graduation requirements are changing in most high schools that responded to the survey. Forty-three percent of responding high schools reported their districts have changed graduation requirements since 1997, and 18 percent are planning to do so in the near future. While the Institute's survey provides a baseline of current activity, it is not known how this compares to the frequency or type of previous changes in local graduation requirements.

Of the high schools reporting changes, 61 percent have added credits or courses required for graduation. Most additions were in English and math. Twenty-seven percent of high schools reporting recent changes had eliminated courses from their graduation requirements. However, many of these actions reflect increased expectations for students. For example, a number of schools no longer allow students to fulfill graduation requirements by taking less stringent courses such as general math and general science.

Just over half the high schools that reported changes in graduation requirements were adding required activities for students (51 percent). The most typical activity is requiring a culminating project (39 percent of high schools reported changes).[43] Culminating projects are often combined with requirements for students to prepare portfolios or participate in service learning. Some high schools are requiring students to take credits or courses that align with a chosen career pathway.

Nationally, students are taking more academic courses, but little is known about the rigor of the course content. The changes Washington high schools are making to add requirements in English and math are consistent with trends across the country to increase academic course requirements for high school graduation. High school graduates nationwide are taking more academic courses.[44] However, increased numbers of courses do not necessarily indicate increased rigor in course content. Research indicates that the rigor of academic courses affects academic achievement and is the most significant predictor of readiness for college.[45] Little information is available about course rigor in Washington or other states because school transcripts and course titles give little indication of course content.

---

[41] WSIPP Principal Survey 2001. Twenty-two out of 170 respondents to an open-ended question about challenges faced by high schools expressed concern about a consistent state message on education reform.

[42] This summary does not include state policies allowing special education or LEP students to take alternative forms of state tests.

[43] Under the SBE's new graduation requirements, all students will be required to complete a culminating project beginning with the class of 2008.

[44] On average, high school graduates nationwide in 1998 accumulated three more academic credits than graduates in 1992. National Center for Education Statistics, *Condition of Education 2000* (Washington D.C.: U.S. Department of Education, 2000), 44.

It is not known to what degree increased rigor will cause struggling students to drop out of school. Nationally, dropout rates declined during the 1980s when many states increased graduation requirements, but a recent study found that increasing the number of course credits required for graduation may lead to higher dropout rates.[46] As expectations for what students must accomplish to graduate from high school increase at the state, district, and high school levels, state policymakers will want to monitor dropout rates closely and analyze any trends and changes. However, as discussed in the Institute's interim report, more work is needed to improve the accuracy of dropout rates reported by OSPI.[47]

Student Competencies

Most high schools believe that students in the future may demonstrate competencies instead of earning credits for graduation. The SBE's statewide graduation requirements still require students to accumulate a certain number of credits in various subjects, although the changes adopted in 2000 also define for the first time the minimum content for each subject (Benchmark III of the EALRs). In addition, the SBE gave local school districts the option to award credits toward graduation based on demonstrated competencies rather than accumulated hours spent in classes.

As Figure 7 illustrates, only a handful of high schools (15 percent) are confident they will use student competencies instead of credits for graduation at some time in the future. Most high schools were uncertain but believed it likely they would adopt this type of policy (55 percent). The SBE has not provided any definitions or guidance to high schools for how to translate credits into competencies. One school district that has adopted competency-based graduation requirements created additional standards beyond the state EALRs and described the content of each standard, as well as the expected performance and evidence to be submitted by students.[48]

---

[45] Educational Testing Service, "Opportunity Offered—Opportunity Taken: Course-Taking in American High Schools," *ETS Policy Notes* 9, no. 1 (Spring 1999), and Office of Educational Research and Improvement, *Answers in the Toolbox: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*, <http://www.ed.gov/pubs/Toolbox>, June 1999.

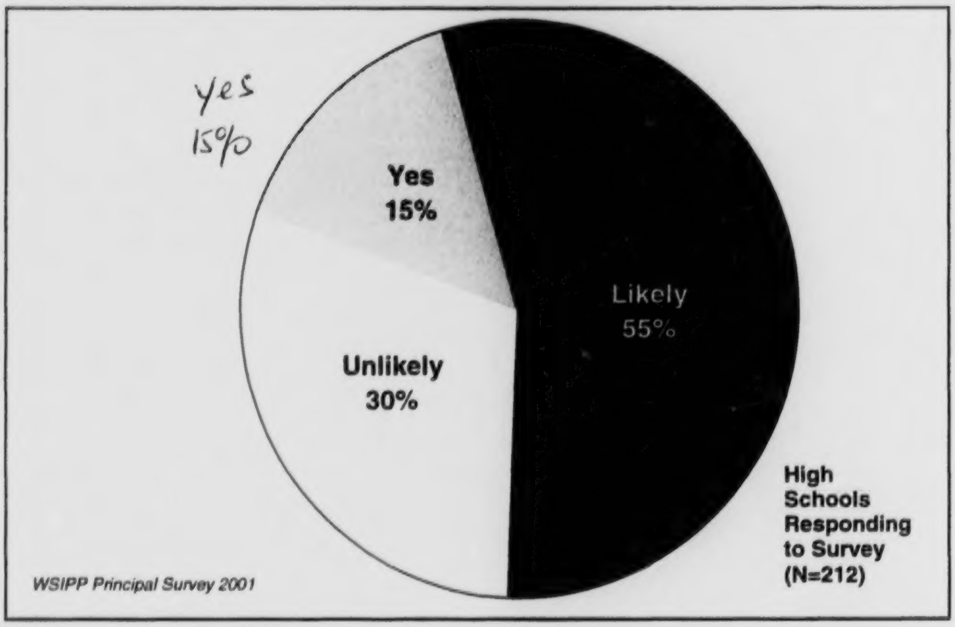
[46] Dean R. Lillard and Philip P. DeCicca, "Higher Standards, More Dropouts? Evidence Within and Across Time," *Economics of Education Review* 20: 459-473, <www.elsevier.com/locate/econedurev: Pergamon>, 2001.

[47] Edie Harding et al., *Educational Opportunities in Washington's High Schools Under State Education Reform: Background and Student Outcomes, Volume 1* (Olympia, WA: Washington State Institute for Public Policy, January 2001), 44.

[48] Starting in 2008, Lake Washington students will be expected to demonstrate proficiency in five Advanced Literacies: Communication, Quantitative and Scientific Reasoning, Citizenship, Culture, and School to Career and Life Skills. Lake Washington School District, *Student Profile Curriculum Framework* (Redmond, WA, August 2000).

Figure 7

Will Individual High Schools Use Student Competencies Instead of Credits for Graduation?



WSIPP Principal Survey 2001

The future of competency-based college admissions is unknown. Since 1995, the Higher Education Coordinating Board (HECB) has been working with an advisory committee to develop a competency-based approach for admission to four-year public institutions of higher education. To date, the HECB has adopted competencies in English, math, world languages, and science. In each subject area, content knowledge beyond Benchmark III of the EALRs was defined in order to be equivalent to current state minimum admission standards for four-year colleges. At four pilot schools, teams of high school teachers and college faculty have been identifying what types of student work demonstrate successful mastery of content in each subject and are working to reach a common understanding of how competencies can be practically applied.

There is no state mandate for competency-based admission, although the Legislature has expressed interest in improving alignment between college entrance, the EALRs, and the Certificate of Mastery.[49] An evaluation of the HECB pilot projects suggested that additional legislative direction and funding would be necessary to implement competency-based college admissions on a statewide basis.[50] The HECB work was funded through a grant that has expired; no additional state funds have been appropriated to continue the project.[51]

---

[49] RCW 28A.655.060 directed the Commission on Student Learning to study how college entrance requirements could be made consistent with the EALRs and Certificate of Mastery. Under these auspices, the HECB convened its advisory committee on competency-based college admission.

[50] National Center for Higher Education Management Systems, *Washington HECB Competency-Based Admissions Evaluation Report* (Boulder, CO: May 15, 2000), 12.

[51] The HECB requested expanding the project to include 12 pilot schools, but funding was not provided in the 2001–2003 biennial budget.

Summary: Increasing the Rigor of What Students Learn

- Most high schools are making ***multiple changes to align curriculum, instruction, and assessment*** with the EALRs and WASL, particularly in 9th and 10th grades. Much activity is occurring with English and math, less with subjects that are not yet tested on the WASL. High schools are also working to increase the academic and technical rigor of vocational courses. Nearly all case study participants reported a positive impact from having the EALRs serve as a common framework for curriculum and instruction.

- Because the WASL is not yet a graduation requirement, high schools are currently more ***focused on preparing 9th and 10th grade students to take the WASL*** and less focused on remediation for 11th and 12th grade students. Although it was never expected that all students would be able to meet the state's standards by 10th grade, high schools are very concerned about remediation and its possible impact on the high school curriculum and learning options for students.

- Students face ***increased expectations for high school graduation***. The state will require students to pass a standards-based assessment to earn a Certificate of Mastery. Locally, high schools are changing course requirements, adding activities such as culminating projects, and creating descriptions of expected student competencies.

- However, there is ***uncertainty associated with efforts to increase the rigor of what students learn***. The academic rigor of additional courses for graduation is unknown. It is not known what effect increased expectations will have on high school dropout rates. Little guidance or assistance has been provided to translate credits required for graduation or college admission into student competencies. While parents, educators, and students largely support state standards, they express concerns about relying on the WASL as a graduation requirement. If the WASL is a graduation requirement, the state will need to ensure the standards are adequately reflected in curriculum and instruction in all schools so all students have the opportunity to learn them.

III. ARE HIGH SCHOOLS MAKING LEARNING MORE RELEVANT FOR STUDENTS?

High schools that responded to the Institute's survey are developing activities to make learning more relevant and assist students with the transition after high school. Most high schools have students prepare portfolios, culminating projects, and educational plans or are planning to implement these activities. Most encourage students to explore future educational and career options through career-themed educational pathways.

High schools have more work to do if these activities are to reach all students. Less than one-fourth of high schools reporting the use of portfolios, projects, or pathways now involve all students in these activities. In approximately one-third of high schools, all seniors prepare portfolios or culminating projects.

The Institute's case studies suggest that, in order to be effective, activities to make learning more relevant must be integrated throughout the high school curriculum. Schools report it takes a great deal of time, effort, and commitment to achieve integration and make the activities meaningful for students.

National research is not conclusive on whether portfolios, culminating projects, or educational pathways are effective. The success of initiatives to assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. However, there is currently no complete picture of what happens to Washington high school graduates.

Approximately half the high schools are trying to create smaller learning communities by organizing small cohorts of students or providing new mentoring programs. The interest in small schools is still relatively new, and policymakers may want to monitor the results of grant-supported initiatives.

Background

Some national studies suggest that to be motivated high school students need to believe that what they learn in school is relevant to the world outside the classroom and see a connection between learning and their own personal goals.[52] There are a number of strategies high schools might try to increase the relevance of learning. Instruction, assignments, and activities can be structured to encourage students to plan for the transition after high school, explore their options, and tailor what they learn in high school to support their future educational and career goals. As high schools increase the rigor of what is expected from students, it will become even more important that students are motivated by the material and skills they are learning, particularly those students who might otherwise believe they cannot succeed in school. This section provides information on efforts by high schools to make learning more relevant for students.

---

[52] Laurence Steinberg, *Beyond the Classroom: Why School Reform Has Failed and What Parents Need to Do* (New York: Simon & Schuster, 1996), 72.

I. **The "Four P's": Portfolios, Projects, Pathways, and Plans.** In the fall of 2000, the State Board of Education adopted a requirement that all students must complete a culminating project for graduation, which is intended to assure that students see the connection between their high school education and future educational or career opportunities. Students must also create an education plan for high school, plus one additional year after high school.[53] State statute requires Washington's public high schools to provide students with the opportunity to pursue career and educational objectives through educational pathways.[54] The Office of the Superintendent of Public Instruction (OSPI) has been encouraging high schools to use the "Four P's" (portfolios, culminating projects, educational pathways, and educational plans) with all students.[55]

II. **Making Curriculum Relevant.** High schools are traditionally organized into academic departments for different subjects. Some national researchers suggest that students would be more interested in learning if ideas and information were presented thematically or across multiple subjects and if students learned through activities, projects, experiments, and observations that simulated real-life situations.[56]

III. **Smaller Learning Communities.** Some national researchers maintain that the large size of traditional high schools creates an impersonal learning environment where students have little connection to the people or the purpose of school.[57] This research has increased interest in creating smaller learning communities within the school and encouraging stronger relationships among students and between teachers and students. Strategies include creating small schools, dividing large schools into multiple schools-within-schools, or keeping smaller groups of students and teachers together.

I. The "Four P's": Portfolios, Projects, Pathways, and Plans

Portfolios and Projects

Most high schools responding to the Institute's survey currently use portfolios and culminating projects, and more schools are planning to do so. High schools might use portfolios and projects for a number of purposes: to encourage all students to take an interest in what they are learning, to assess students' critical thinking and problem-solving skills, to demonstrate students' accumulated knowledge and skills to parents and the community, and to assist students with making educational and career decisions.[58] High schools may also use culminating projects as a way to keep seniors involved and motivated during their last year of school.[59]

---

[53] WAC 180-51-003 and 061.

[54] RCW 28A.655.060.

[55] Personal communication with Kyra Kester, Director of Secondary Education, OSPI.

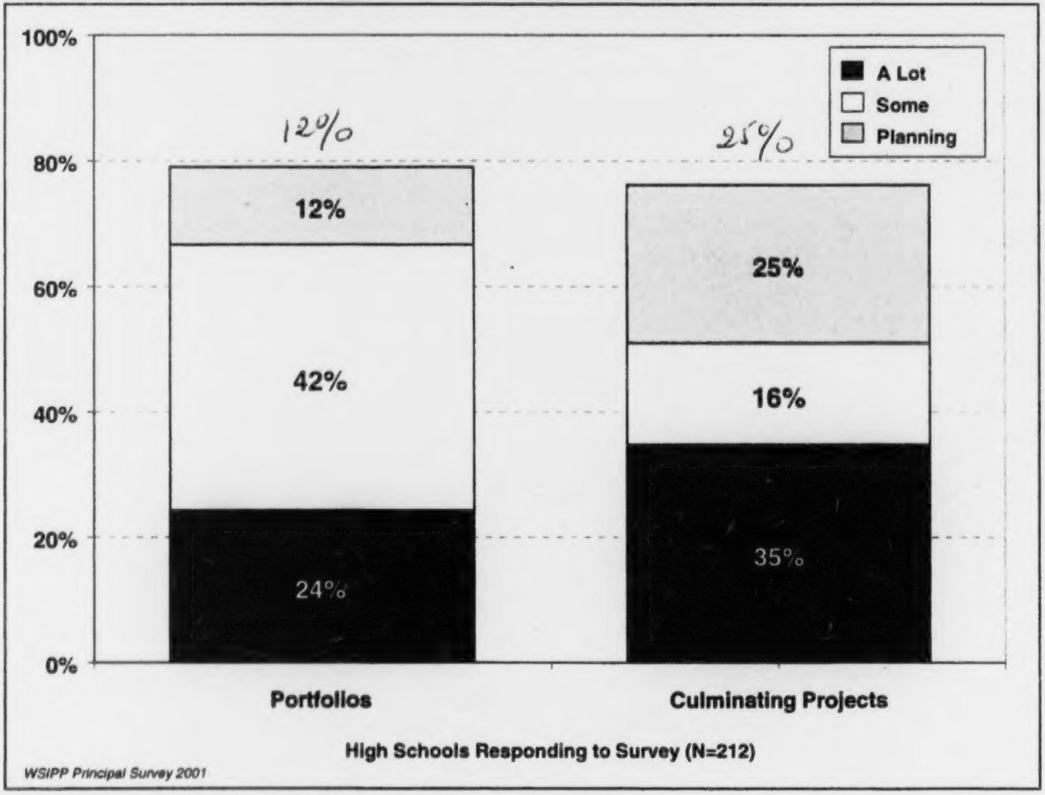
[56] Kathy Lake, "Integrated Curriculum," *Close-up #16* (Portland: Northwest Regional Educational Laboratory, May 1994), 6.

[57] Joseph Murphy et al., *The Productive High School: Empirical Evidence* (New York: SUNY Press, Forthcoming), 298 of draft manuscript.

[58] Judith Arter, et al., "Portfolios for Assessment and Instruction," *ERIC Digest*, ED388890 (1995), 1.

Two-thirds (66 percent) of responding high schools reported they currently use portfolios some or a lot, with an additional 12 percent planning to use them in the future (see Figure 8). Just over half (51 percent) the schools reported currently using a culminating project some or a lot, and one-quarter are planning to use them.

Figure 8
What Proportion of High Schools Currently Use Portfolios and Culminating Projects?



WSIPP Principal Survey 2001

Many high schools also report they are restructuring their use of portfolios or culminating projects.[60] Typical changes include combining the two activities, making one or the other a graduation requirement, or expanding their use from only some students in some classes to all students across multiple grade levels. It is not known to what extent the level of activity in high schools predates or is in response to the SBE's high school graduation requirement.

---

[59] Mayo Tsuzuki, "Senior Projects," *Education Through Occupations in American High Schools: Volume I*, ed. W. Norton Grubb (New York: Teachers College Press, 1995), 134-147.

[60] WSIPP Principal Survey 2001. Open-ended question about the use of portfolios and projects. Nearly 50 schools described changes being planned or underway.

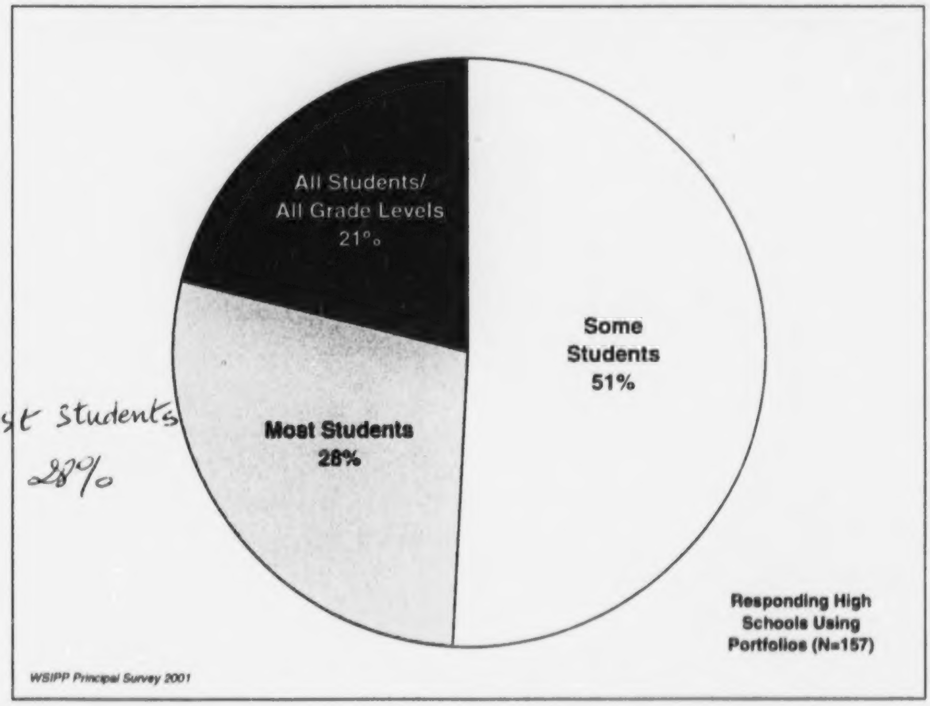
Case Study Example

At Sequim High School, college-bound seniors previously completed a scholarship notebook containing samples of their best work and accomplishments. Starting in 2000, Sequim began implementing the "PACK": Portfolio of Achievement, Career, and Knowledge. The PACK will include entries to illustrate a student's competencies as Planner (educational plan, career interest surveys), Learner (learning styles, academic history, and test scores), Employee (attendance log, resumes, letters of recommendation), and Citizen (volunteer history, clubs, and activities). All students will present their portfolios each year, culminating for seniors with presentations to the community.

Twenty-one percent of high schools that use portfolios have all students at all grade levels complete them. A portfolio is "a purposeful collection of student work that exhibits the student's efforts, progress, and achievements."[61] Students often participate in selecting the contents and are required to analyze and reflect on their accomplishments over time. Of the schools using portfolios, half (51 percent) require only some students to prepare them (see Figure 9). These schools may only use portfolios in certain classes, such as art or English, or with students in certain grades. For example, 31 percent of schools using portfolios reported that all seniors participate.

Figure 9

In High Schools Using Portfolios, Which Students Participate?



WSIPP Principal Survey 2001

Most Students
28%

---

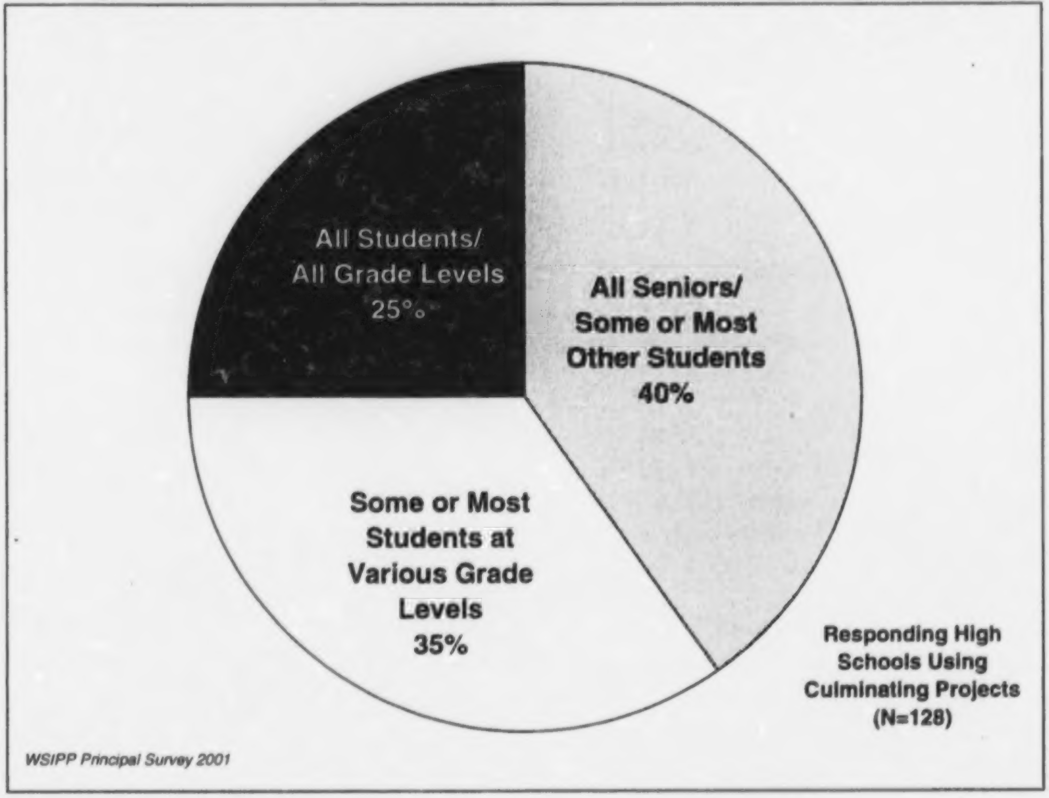
[61] L.F. Paulson et al. "What Makes a Portfolio a Portfolio?" *Educational Leadership* 48(5), 60-63.

Most portfolios combine samples of students' best work and accomplishments; some add a presentation element. In 35 percent of responding high schools that use portfolios, the portfolios contain samples of students' best work and accomplishments (e.g., grades, awards, club memberships, and activities). In 19 percent of the high schools, a third element is added: a presentation to members of the community. In the remaining high schools, there is more flexibility in what students put into their portfolios.

In slightly more than half the high schools that reported using culminating projects, students in multiple grades participate. All seniors complete a culminating project in 33 percent of high schools that responded to the Institute's survey. Although culminating projects are often considered "senior projects," in 56 percent of the schools that reported using culminating projects, students in grades 9 through 12 may participate. For example, high schools may expect students to place materials in a portfolio beginning in 9th grade and then use the portfolio to illustrate their skills and interests as part of their culminating project. One fourth of the high schools using culminating projects reported that all students in the school participate in the projects at all grade levels (see Figure 10).

Figure 10

In High Schools Using Culminating Projects, Which Students Participate?



WSIPP Principal Survey 2001

BEST COPY AVAILABLE

Three-quarters of high schools using projects require students to complete a comprehensive research paper, art work, or other product for their culminating project. In some high schools, a research paper completed in Senior English is an example of a culminating project. In others, a culminating project could have multiple elements completed by students at different grade levels and serve as a catalyst for schools to revamp their curriculum to support the projects.[62] About half the schools incorporate portfolios as an element of a culminating project. Just over half require students to present their project to the community. In 28 percent of high schools that use them, the culminating project involves three elements: a comprehensive work, a student portfolio, and a presentation to the community. Some schools are taking advantage of culminating projects to introduce similar activities at other grade levels.[63]

Pathways and Plans

Two-thirds of high schools report they provide educational pathways organized around a career theme. Nationally, many high schools are experimenting with organizing courses, instruction, and activities around a career theme or career pathway, such as Health and Human Services, Business, or Science and Engineering.[64] The most intensive way to implement career-themed pathways is through a career academy, where entire schools or schools-within-schools are geared to careers within a broad industry group, such as Finance or Natural Resources.[65]

In Washington, the statute requiring high schools to offer educational pathways is quite broad and leaves high schools a great deal of latitude in defining how to interpret and implement what the legislature intended.[66] Sixty-seven percent of high schools responding to the Institute's survey report organizing educational pathways around career themes.

Many high schools have booklets that categorize different occupations into pathways. Typically, each pathway includes a range of possible careers, from those a student could enter immediately after graduation to those requiring a four-year or advanced degree. A pathways booklet might explain, for example, that home health aide, dental hygienist, and doctor are in the Engineering, Science, and Medical Services pathway. Information is usually available about which high school courses should be completed depending on the student's choice of pathway. The booklets may be used by the counseling office to advise students about course registration or post-high school plans.

---

[62] Mayo Tsuzuki, "Senior Projects," 134-147.

[63] WSIPP Principal Survey 2001. Ten schools reported integrating the culminating project with other project work in multiple grades; five more were integrating the project into the overall curriculum. In Nooksack Valley, for example, students conduct research and make presentations at increasing levels of sophistication every two years starting in 6th grade.

[64] National Center for Education Statistics, *Vocational Education in the U.S.: Toward the Year 2000* (NCES 2000-029, February 2000), 5.

[65] For more information on career academies, see Appendix F.

[66] RCW 28A.655.060(3)(c) reads: "Upon achieving the certificate of mastery, schools shall provide students with the opportunity to pursue career and educational objectives through educational pathways that emphasize integration of academic and vocational education. Educational pathways may include, but are not limited to, programs such as work-based learning, school-to-work transition, tech prep, vocational-technical education, running start, and preparation for technical college, community college, or university education."

Forty percent of surveyed high schools have intensively implemented career-themed educational pathways for students. The Institute survey asked high schools how much they relied on a number of activities to support and implement educational pathways based on career themes (see Table 4).

Table 4
How High Schools Might Implement Educational Pathways

- All or most students choose a pathway.
- Courses have been modified to reflect career themes.
- Work-based learning, projects, and other activities are based on career themes.
- Students are encouraged to choose electives based on their pathway.
- Staff have received training to implement career-themed pathways.
- Materials and topics for portfolios and culminating projects reflect a student's pathway.

About half the high schools with career-themed pathways reported using each of these activities to some degree. No more than one-third of high schools reported using any of these activities a lot. For example, in only 30 percent of high schools using career-themed pathways do all students choose a pathway.

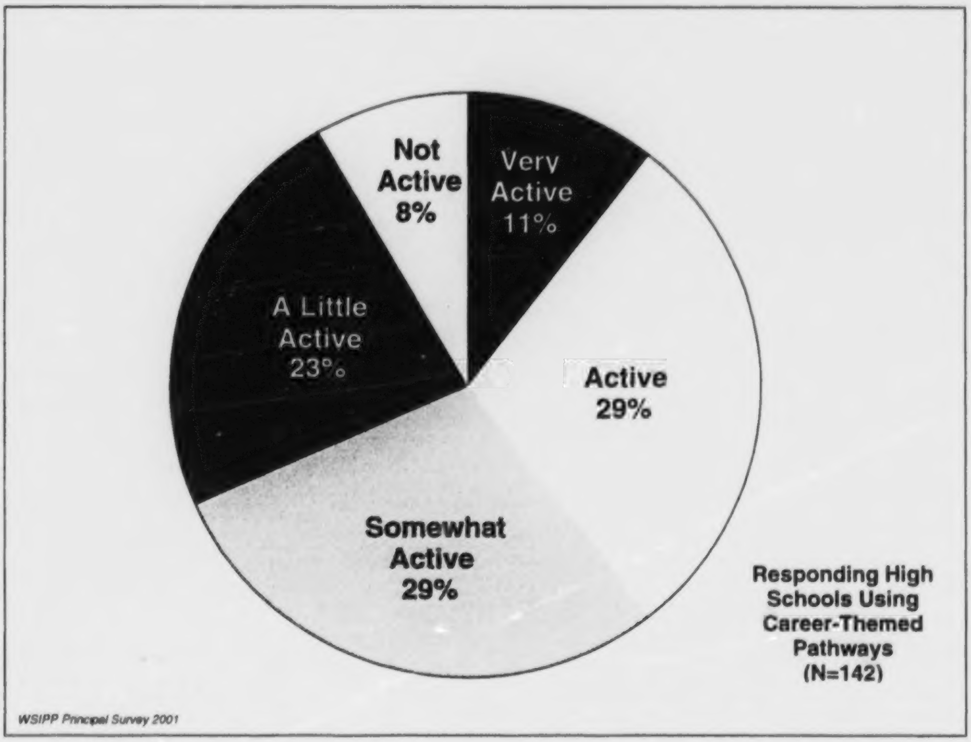
Figure 11 depicts the extent high schools that reported using career-themed pathways are using multiple activities simultaneously to support implementation of their pathways.[67] Eleven percent of high schools with pathways very actively use multiple activities to support their pathways. Twenty-nine percent could be considered "active." In the case study schools, students were more likely to find pathways useful when they were reinforced through activities, portfolios, and assignments.

---

[67] Survey responses for six activities in support of career-themed pathways were combined to get a composite score for each high school. The range of possible composite scores (6 through 24) was divided into five score groups, and high schools in each score group were assigned a description from "Very Active" to "Not Active."

Figure 11

How Actively Are High Schools Implementing Career-Themed Pathways?



WSIPP Principal Survey 2001

Case Study Example

Pasco High School has created five career-themed educational pathways: Business and Marketing Management (BAMM); Environmental, Agricultural Resources, Technology Horizons (EARTH); Health and Services (HANDS); Arts, Communication and Entertainment (ACE); and Engineering, Manufacturing, Industrial Technologies (EMIT).

All 9th grade students are offered five two-week course modules that orient them to the pathways. The modules include guest speakers, information about possible careers, field trips, and instruction geared around that pathway. For example, the EARTH module (taught in the science class) included speakers from Hanford and other local industries, a trip to a water treatment plant, and laboratory work on water purification. In the spring, students choose one of the pathways. There are special projects for each subsequent grade level (service learning, Business Enterprise Week, and senior project), which students are encouraged to focus around their pathway.

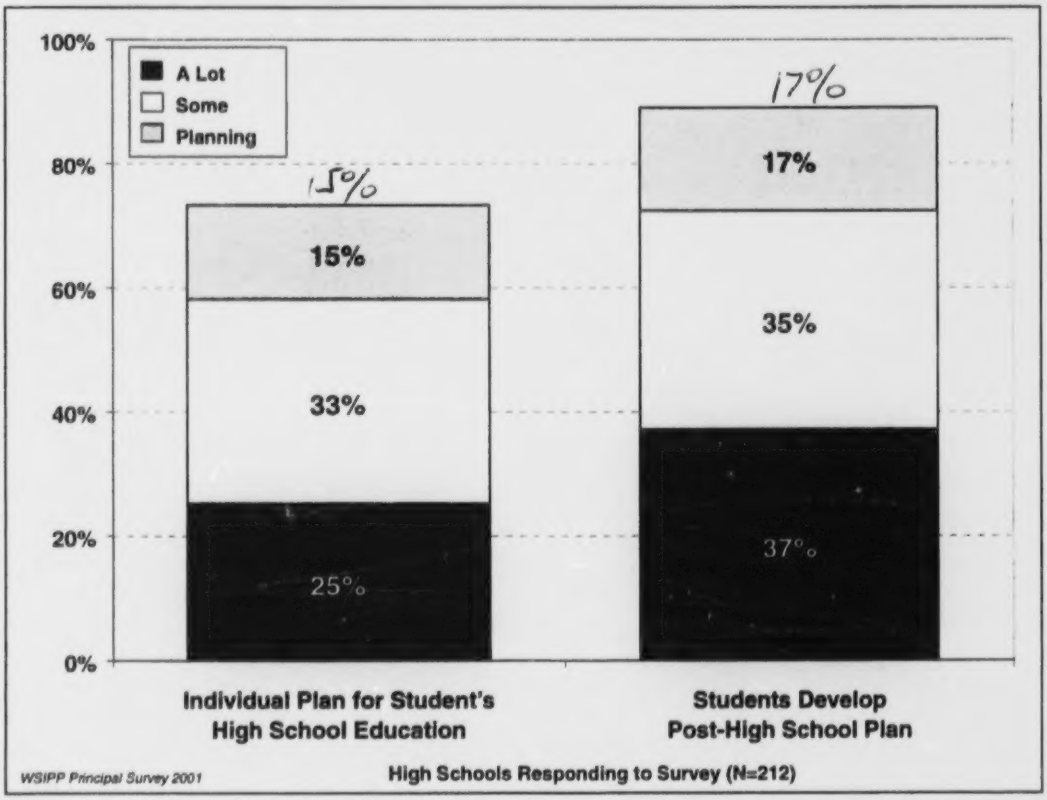
BEST COPY AVAILABLE

Educators and parents in the case study schools pointed out that the primary objective of educational pathways is to encourage students to become interested in their future, explore options, set goals, and actively take steps to accomplish their goals while in high school. However, some parents, teachers, and students had concerns that students may feel forced to choose a single career too early and limit their options. Some also maintain high schools should not be actively involved in vocational issues outside the counseling office or traditional vocational training courses.

Most, but not all, high schools use individual educational plans with students. As Figure 12 shows, 58 percent of high schools responding to the survey reported that students prepare individual plans to guide their high school education, and an additional 15 percent of high schools are planning to have students prepare high school plans. Seventy-two percent reported students develop plans for what they want to do immediately after high school, with 17 percent planning to have students complete them. Both types of plans would be required for all students under the SBE's high school graduation requirements.

Figure 12

How Much Do High Schools Use Educational Plans for Students?

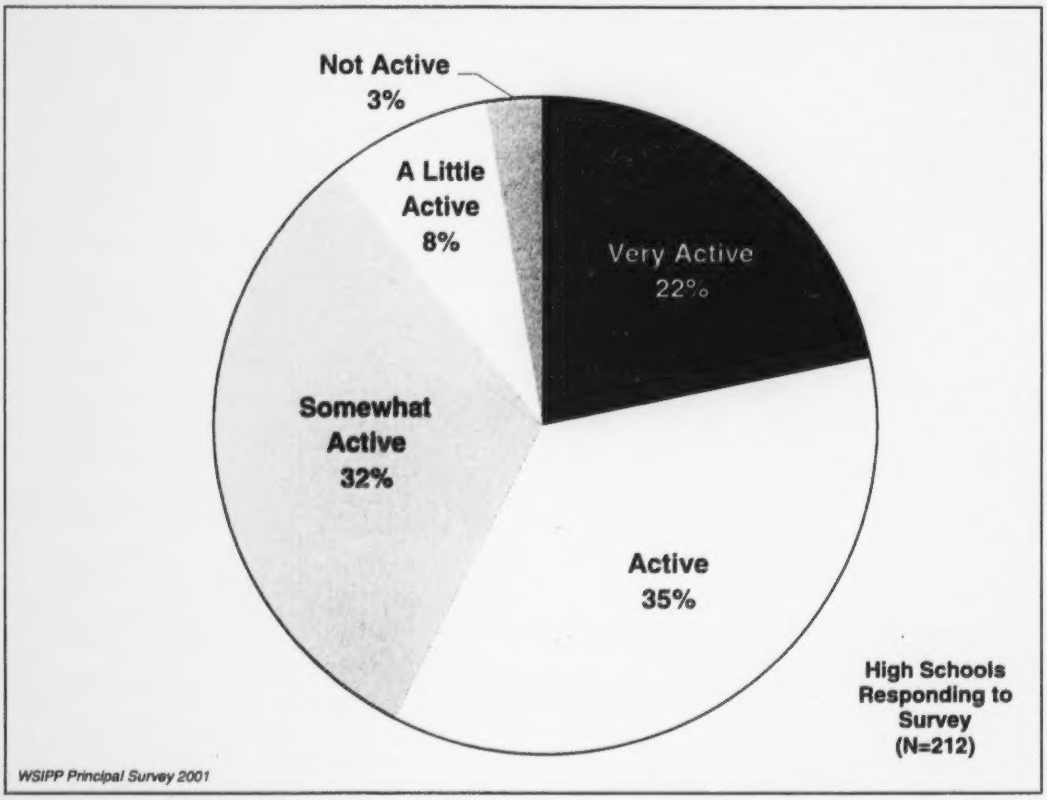


WSIPP Principal Survey 2001

The Four P's

Nearly 60 percent of high schools are actively or very actively implementing portfolios, projects, pathways, and plans simultaneously. OSPI has been encouraging high schools to use all four activities to make learning more relevant for students by helping students relate what they are learning to their interests and futures and assisting them in making more thoughtful educational and career decisions. As Figure 13 shows, slightly less than one-fourth of high schools responding to the survey (22 percent) are already very actively implementing each of these activities. About a third (35 percent) are active.

Figure 13
How Actively Are High Schools Implementing Portfolios, Projects, Pathways, and Plans?



WSIPP Principal Survey 2001

Case study participants believed portfolios and projects need to be integrated into students' overall education in order to be effective. There is only anecdotal research evidence to support claims that portfolios and senior projects make learning more relevant for students by encouraging them to tailor the activities around their interests and goals.[68] Nevertheless, case study schools with more experience and those that had made portfolios and projects an integral part of the high school curriculum were confident of their benefits for students. In these schools, students, teachers, and parents had become convinced the activities were both important and valuable. However, they also pointed out that integration takes time, effort, and commitment within the school. Concerns about time and resources have also been voiced in testimony to the SBE and the legislature regarding culminating projects as a statewide high school graduation requirement.

---

[68] Judith Arter et al., "Portfolios for Assessment and Instruction," *ERIC Digest*, ED388890 (1995), 1.

High schools vary in how intensively they implement educational pathways and plans, making it difficult to determine if these efforts have any effect. Some high schools rely primarily on guidance counseling and booklets explaining different educational and career options to implement a career-themed pathway. Students may complete a form to be placed in their student file indicating which courses they wish to take during high school and their general plans for the first year after high school (e.g., college, military, or work). It is unclear whether this degree of implementation makes learning more relevant for students. Most national research on pathways and career planning has been conducted on highly structured programs, such as career academies. Even among career academies, the degree of implementation varies. Researchers have found better outcomes (lower dropout rates, higher credit earnings, and increased graduation rates) for career academies with more supporting activities and a more formal organization around career themes.[69]

The success of initiatives intended to assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. The Institute's interim report identified several possible measures of student outcomes, such as educational attainment after high school, remediation in college, or post-high school employment. However, current efforts by OSPI and the Workforce Training and Education Coordinating Board to collect data on high school graduates in Washington is limited by an inability to match school, college, and employment records for more than half of students who graduate from public high schools.[70]

II. Making Curriculum Relevant

Most high schools responding to the survey are trying different approaches, but few report extensive use of strategies to make curriculum relevant to students. Figure 14 illustrates the extent high schools report using the following strategies to make curriculum relevant to students:

- **Community Service Learning**, where volunteer or community service is part of the school's curriculum and instruction. Students are often expected to draw lessons from their experience through classroom discussion, reflection papers, and other research.[71]

---

[69] Manpower Research Demonstration Corporation, *MDRC Career Academies Evaluation Study Handout*, materials presented at the American Educational Research Association annual meeting in New Orleans, LA, April 2000. See Appendix F for a more complete summary of the MDRC research on career academies.

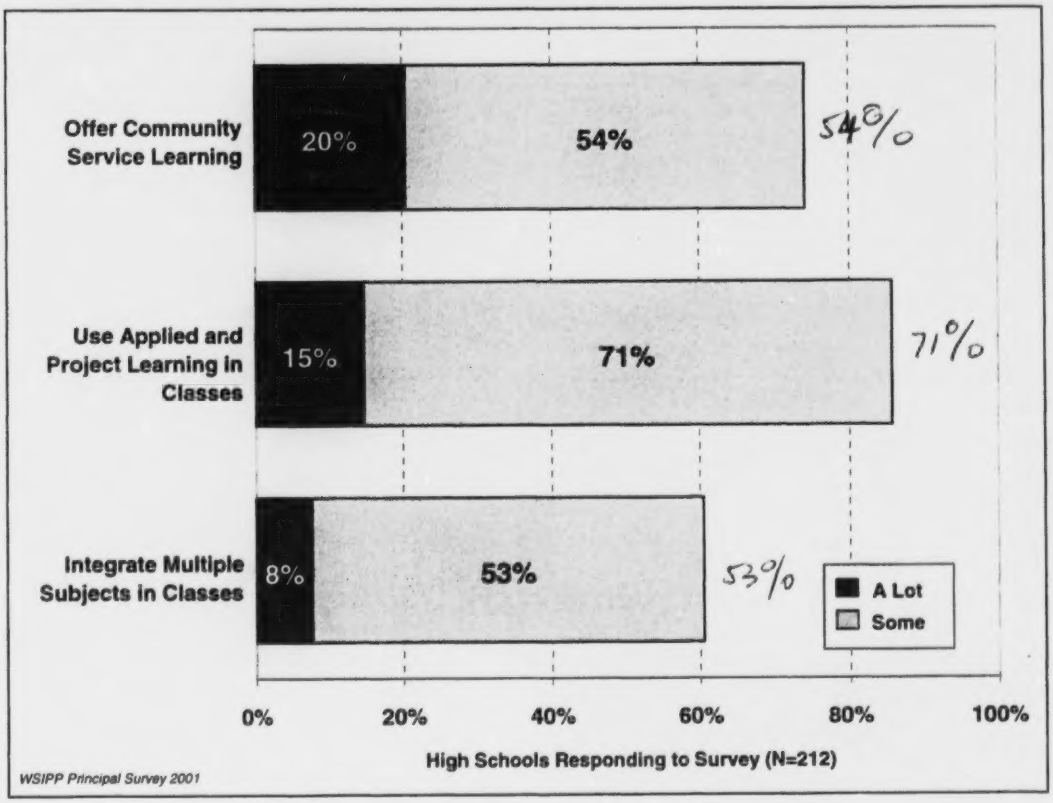
[70] Edie Harding et al. *Educational Opportunities in Washington's High Schools Under Education Reform: Background and Student Outcomes, Volume 1* (Olympia, WA: Washington State Institute for Public Policy, January 2001), 42 and 44.

[71] National Center for Education Statistics, *Service-Learning and Community Service in K-12 Public Schools* (NCES 1999-043, September 1999), 3. Nationally, an estimated 46 percent of high schools offer community service learning.

- **Applied and Project Learning**, where classroom assignments require students to solve realistic problems, work in groups, produce products, and do other hands-on activities to display their knowledge and skills.[72]
- **Integration of Multiple Subjects**, where, for example, literature and history of the same time period are taught within one course or units of multiple courses are organized around a common theme or question.

While most surveyed schools have used these strategies, 20 percent or fewer reported using them a lot throughout the high school curriculum.

Figure 14
What Strategies Do High Schools Use to Make Curriculum Relevant?



WSIPP Principal Survey 2001

---

[72] Leslie Hendrikson, "Active Learning," *ERIC Digest,* No 17 <http://www.ericae.net/edo/ED253468.htm)>, 1.

Case Study Example

Nathan Hale High School in Seattle has created integrated studies blocks of language arts, social studies, and science for all 10th grade students. Units and material in the three courses are organized around a common theme, such as "What is a System?" or "How do We Measure Progress?" Teachers in the blocks plan group projects and activities that incorporate all three subjects during a common planning period. For example, for a unit dealing with endangered species, students might learn about zoology and ecology in science, study state and federal laws in social studies, and write an investigative magazine article in language arts. Students who want an honors option can do additional reading and papers.

Little hard evidence exists about whether students learn better through integrated curriculum or applied learning. Existing studies on integrating curriculum generally find that students do not lose ground, are expected to learn more, and may have a better attitude about school.[73] One recent evaluation of a national program of community service learning found positive effects on students' attitudes and volunteerism while they were doing service learning but not as much effect on their school performance.[74] However, making curriculum relevant to students may be a key part of overall high school reform. Some research suggests that integration of curriculum (both across subjects and between academic and vocational areas) is one characteristic of high schools that has successfully restructured and shown improvements in student learning.[75]

III. Smaller Learning Communities

Approximately half the high schools are trying to create smaller learning communities through small groups of students and teachers. National research has drawn attention to increased benefits for students in small schools or schools-within-schools compared with large schools.[76] Small schools or smaller learning communities have been shown to reduce dropout rates, increase attendance rates, and improve students' attitudes about school. Some studies have found that students believe having teachers who care about them is very important to their education and helps to create a more effective learning environment.[77]

---

[73] Kathy Lake, "Integrated Curriculum," *Close-Up #16* (Portland: Northwest Regional Educational Laboratory, May 1994), 8-10; Mathematica Policy Research Inc., *Key High School Reform Strategies: An Overview of Research Findings* (Washington D.C.: Office of Vocational and Adult Education, March 2000), 9-11; Arthur Ellis and Jeffrey Fouts, "Interdisciplinary Curriculum: The Research Base," *Music Educators Journal* 87, no. 5, (March 2001), 22-28.

[74] Center for Human Resources, *National Evaluation of Learn and Serve America* (Waltham MA: Brandeis University, July 1999), 9-13.

[75] Valerie Lee and Julia Smith, "High School Restructuring and Student Achievement," *Issues in Restructuring Schools: Issue Report No. 7* (Madison, WI: Center on Organization and Restructuring of Schools, 1994).

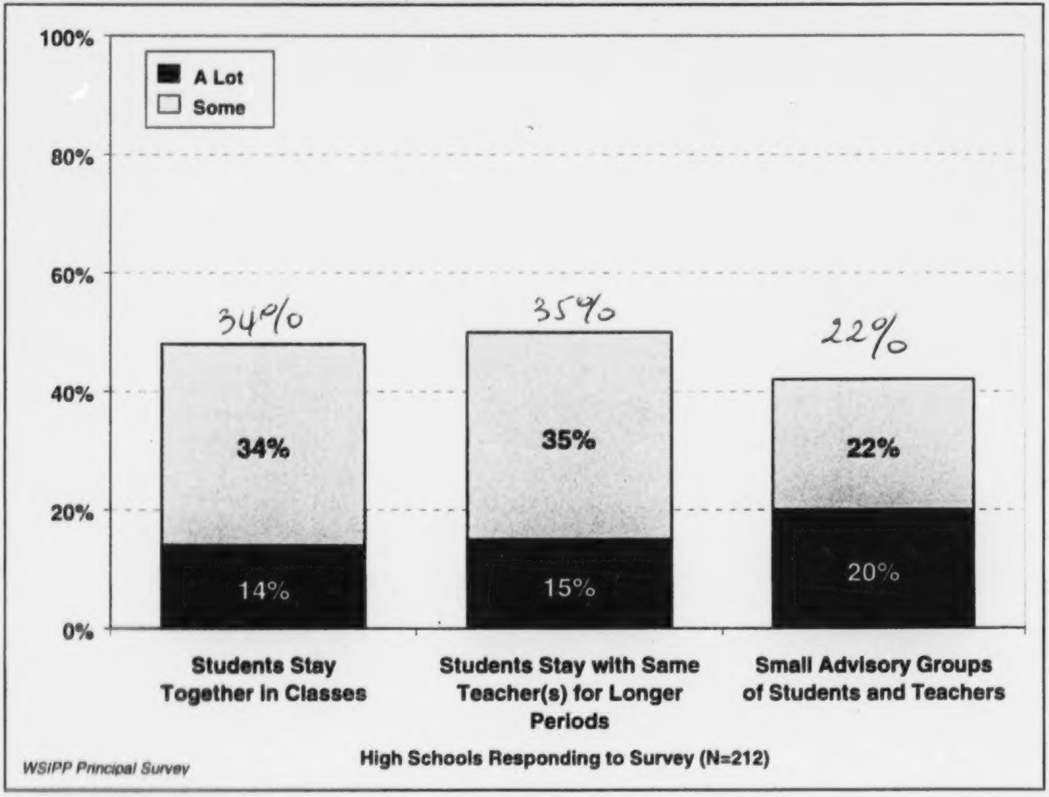
[76] Kathleen Cotton, "School Size, School Climate, and Student Performance," *Close-Up #20* (Portland, OR: Northwest Regional Educational Laboratory, 1996), 3.

[77] Joseph Murphy et al., *The Productive High School: Empirical Evidence* (New York: SUNY Press, Forthcoming), 271 of draft manuscript.

In Washington, approximately one-third of high schools responding to the Institute's survey reported some activity in creating small cohorts of students and teachers, while 14 to 15 percent reported a lot of activity (see Figure 15). About 22 percent of high schools had done some work to create small teacher-student advisory groups where teachers take on the responsibility of advising students. Twenty percent reported a lot of activity with small advisory groups. Small schools are naturally able to have small groups of students and teachers and were therefore more likely to report activity, but some large schools were also intentionally trying to create smaller learning communities. Medium-sized schools are least likely to report use of these strategies.[78]

Figure 15

To What Extent Are High Schools Creating Small Groups of Students and/or Teachers?



WSIPP Principal Survey

---

[78] A school's combined use of small groups of students and keeping teachers and students together was compared to the size of the school (Small: <500 students; Medium: 500–1500; Large: >1500). The differences were statistically significant at a 95 percent confidence interval.

Case Study Example

As a member of the Coalition of Essential Schools, Nathan Hale High School in Seattle has made a school-wide commitment to build stronger teacher/student relationships. Starting in 1998, Nathan Hale divided all 9th graders into two academies. The academies are a two-period, three-hour block in humanities (language arts and social studies) and health/science, each staffed by six teachers with a student-teacher ratio of approximately 20:1. The academies are designed to encourage group work and provide more time with one teacher and the same students than a traditional schedule would allow. The academies are inclusive so students of all levels of ability, including special education and ESL students, are taught in the same classes. Several teachers who worked in the 9th grade academy moved with students into the 10th grade integrated studies blocks.

Interest in creating smaller learning communities in high schools is still relatively new. There has been a high level of recent interest both nationally and statewide in creating small schools and smaller learning communities. In 2000 and 2001, ten school districts and 17 high schools received grants totaling approximately $150 million from the Bill and Melinda Gates Foundation to accelerate reforms that include restructuring high schools.[79] State policymakers may want to monitor the effectiveness of grant-supported efforts to create smaller learning communities and consider whether the state should also support models that prove to be successful.

Summary: Making Learning More Relevant For Students

- High schools are ***developing activities to make learning more relevant and to assist students with planning for the transition after high school***. Most have students prepare portfolios, culminating projects, and educational plans or are planning to implement these activities. Most encourage students to explore future educational and career options through career-themed educational pathways. Most high schools are also trying various ways to make the curriculum more relevant, such as community service learning, applied learning, or integrating multiple subjects.

- However, high schools have ***more work to do if these activities are to reach all students***. All students participate in portfolios, projects, or pathways in less than one-fourth of high schools. In about one-third of high schools, all seniors prepare portfolios or culminating projects. Twenty percent or less of high schools reported extensive use of strategies to make curriculum relevant.

- The experience of the case study schools suggests that in order ***to be effective***, activities to make learning more relevant ***must be integrated throughout the high***

---

[79] For additional information about Gates Foundation grants to restructure high schools, see Appendix G. Linda Shaw, *$100 Million to 16 Schools: Cleveland Among Recipients of Gates Scholarships,"* Seattle Post-Intelligencer, March 13, 2001, and Bill and Melinda Gates Foundation: <http://www.gatesfoundation.org/learning/ed/schools/default.htm>.

BEST COPY AVAILABLE

school curriculum. While most high schools are trying one or more activities, fewer use multiple strategies to make the activities meaningful for students. Schools report it takes a great deal of time, effort, and commitment to achieve integration and make activities meaningful for students.

- ***National research is not conclusive*** on whether activities such as portfolios, culminating projects, or educational pathways have an effect on student performance. The success of initiatives to assist students with transitions may have to be measured by examining students' educational and career pathways after graduation. However, there is currently no complete and accurate way to identify what happens to high school graduates in Washington.
- About half the high schools are ***trying to create smaller learning communities*** by organizing small cohorts of students and teachers. The interest in small schools is still relatively new. Policymakers may want to monitor the effectiveness of grant-supported efforts to create smaller learning communities.

IV. ARE HIGH SCHOOLS PROVIDING LEARNING OPTIONS FOR 11TH AND 12TH GRADES?

The state statute pertaining to students who have completed a Certificate of Mastery lists a number of learning options for students, such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education. According to the Institute's survey, most of these options are readily available in high schools across the state.

The quality of information about how many 11th and 12th grade students participate in these options is mixed. Student enrollment in college-level learning is growing, although some groups of students are more likely to enroll in these options than others. Baseline data are available about students who specialize in career and technical preparation. For other options, data about student participation are not comprehensive. National and state research provide no clear indication that any single learning option has more effect than others on student performance or outcomes.

High schools identify some barriers to continued expansion of learning opportunities, such as funding for staff training and materials, accommodating small specialized classes into the school schedule, and lack of student interest.

It is not clear how the Certificate of Mastery will influence learning options for 11th and 12th grades. High schools are concerned that providing additional assistance for students who do not pass the WASL in 10th grade will limit their ability to offer a range of options for students.

Background

While high schools are responding to expectations to increase rigor and make learning more relevant, they are also trying to maintain and expand options for students, particularly for students in 11th and 12th grades. Some national researchers have articulated a vision of education reform in high school that includes a rigorous core curriculum for all students (to be accomplished at about 10th grade), followed by multiple and varied opportunities for students to specialize and prepare for the transition after high school, based on their individual interests and post-high school plans.[80] The only state statute pertaining to students who have completed a Certificate of Mastery lists some options for students, such as Advanced Placement, Running Start, and Tech Prep.[81]

This section provides a baseline description of a number of learning options offered in Washington's public high schools and summarizes available information on the effectiveness of these programs.

---

[80] David Marsh and Judy Codding, *The New American High School* (Thousand Oaks, CA: Corwin Press, 1999), xii.

[81] RCW 28A.655.060.

BEST COPY AVAILABLE

I. **Overview: Learning Options for 11th and 12th Grades.** State statute places an expectation on high schools to offer options such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education. In the last three years, state funds have been provided to support other options for high school students, such as distance learning, technology certification, and alternative education. The Institute survey documents how readily these options are available in high schools across the state.

II. **College-Level Learning.** Nationally, interest and enrollment in courses offering both high school and college credit are growing.[82] Some high schools may expand college-level learning courses and encourage more students to enroll in them as a way of making the overall curriculum more academically rigorous.[83]

III. **School-to-Work Transitions.** The objectives of School-to-Work are very broad: improve students' academic and workforce skills; integrate academic and vocational education; increase work-based learning opportunities such as internships, job shadows, and apprenticeships; and encourage employers to participate in reforming high schools. School-to-Work was not conceived as a separate educational program but a series of initiatives to support students' successful transition beyond high school.[84]

IV. **Vocational Education.** Vocational education has long been an option for students to receive practical training for general occupational skills (such as keyboarding or business procedures) or workforce preparation (such as welding or computer networking). In response to criticisms from employers that students are not adequately prepared to work in a changing economy, high schools are trying to strengthen vocational programs using industry standards.

V. **Tech Prep.** The federal Tech Prep Education Act (1990) was enacted in response to concerns that students need to increase their academic and technical skills and consider advanced training from community and technical colleges, even if they do not intend to complete a four-year college degree.[85] Tech Prep involves creating programs in technical fields across three educational levels: high schools, community and technical colleges, and four-year institutions.

VI. **Distance Learning and Technology Certification.** High schools are being encouraged to use technology to increase learning opportunities for students. Through distance learning, students can take courses that may be unavailable at the high school. The expansion of jobs requiring expertise in technology has led private industry to support training and certification programs in high schools.

VII. **Alternative Education.** Alternative education typically targets students with different learning needs: those at risk of failing or dropping out, those who need a non-traditional learning environment, or those who wish to combine other activities (work, parenting, home study) with their education.

---

[82] John Gehring, "Dual Enrollment Programs Spreading," *Education Week*, April 25, 2001.

[83] Kimberly Crooks, *State Enhancement of College Level Learning for High School Students: A Comprehensive National Policy Study & Case Studies of Progressive States*, dissertation (Buffalo: University of New York, 1998).

[84] Katherine Hughes et al., *School-to-Work: Making a Difference in Education* (New York: Teachers College Columbia University, 2001), 10.

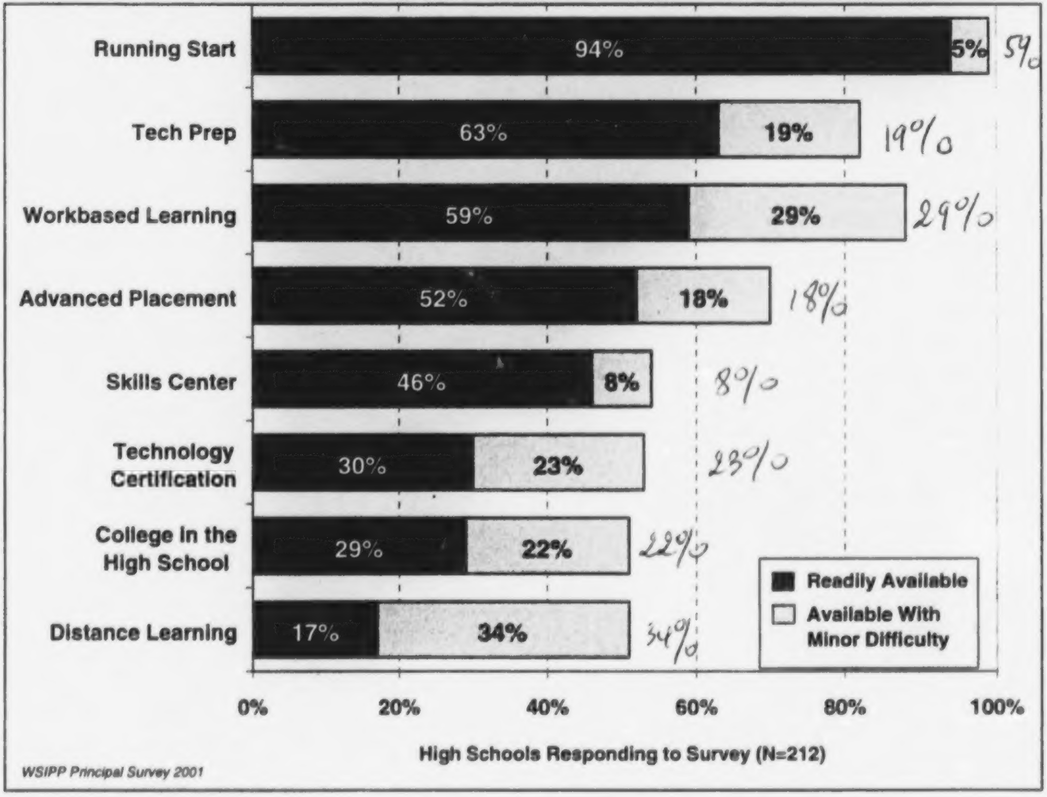
[85] Mathematica Policy Research Inc., *The Final Report of the National Tech-Prep Evaluation* (Washington D.C.: U.S. Department of Education, 1998), 7.

I. Overview: Learning Options for 11th and 12th Grades

Running Start and Tech Prep are the most readily available 11th and 12th grade learning options. As Figure 16 shows, high schools responding to the Institute survey report Running Start is the most readily available learning option, followed by Tech Prep. The least available options are College in the High School and distance learning.[86] The Institute's survey did not document whether the availability of these options has changed in recent years, although Running Start, Tech Prep, and Advanced Placement have been in existence for many years and options such as technology certification and distance learning are relatively new.

Figure 16

How Available Are Learning Options for 11th and 12th Grade Students?



WSIPP Principal Survey 2001

---

[86] Information describing each option appears later in this section of the report.

More than two-thirds of high schools report five or more of the 11th and 12th grade learning options are available. Eight percent of responding high schools report that each of the eight learning options shown in Figure 16 are either readily available or available with minor difficulty. Most options (between five and seven) are available in 62 percent of high schools.

II. College-Level Learning

In Washington, the five college-level learning programs are Running Start, Advanced Placement, International Baccalaureate, College in the High School, and Tech Prep. College-level learning programs are offered in a number of ways:

- *Running Start* students enroll directly in a community or technical college or one of three participating four-year universities. If students successfully complete a course, they receive both high school and college credit. Funds are transferred from the high school to the community college in lieu of tuition.

- *Advanced Placement (AP)* classes are taught by high school teachers using a national curriculum developed by the College Board.[87] For a fee, students can take an examination and, depending on their score, apply to a college or university for credit.

- *International Baccalaureate (IB)* programs offer students an opportunity to take rigorous coursework in six program areas. Students who successfully complete the program and series of examinations earn an IB diploma, which is recognized internationally and typically considered equivalent to one year of college-level work. Students may also opt to take only some courses. Fees are charged for the exams.

- *College in the High School* courses are taught by high school teachers and offered in collaboration with a college or university that agrees to provide credit for students who successfully complete the course. To earn the credit, students pay a fee to the college.

- *Tech Prep* refers to vocational and technical courses that have been articulated with courses at a community or technical college so students can complete an orderly sequence of skills training. For some courses, the college will provide credit to students who earn at least a B grade and pay a small fee.

Table 5 compares program characteristics, high school participation, and student enrollment in college-level learning.

---

[87] The College Board is a non-profit organization that administers the SAT, ACT, and Advanced Placement tests.

Table 5
Comparison of College-Level Learning Programs

	Running Start	Advanced Placement	International Baccalaureate	College in the High School	Tech Prep
Location	College campus[88]	High school	High school	High school	High school
Instructor	College faculty	High school faculty	High school faculty	High school faculty (often acting as adjunct college faculty)	High school faculty
Curriculum	Courses offered at the college (Must be 100 level or above for college credit)	32 subjects available Course content and exam set by the College Board	Courses in 6 program areas Content and exams set by IB organization	Individual courses agreed to by college and high school	Articulated vocational-technical courses
Basis for College Credit	Student passes course	Determined by college based on exam score	Determined by college based on exam score	Student passes course	Student passes course, usually with B or better
Student Eligibility	Junior (Must pass placement test[89])	Usually junior; teacher decides	Usually junior; some take pre-IB	Usually junior; teacher decides	No limit, but courses usually upper level
Cost to Student	Books and transportation	$77 per examination	$180–$525[90]	Ranges between $0–>$300[91]	$10–$15 processing fee
High Schools Offering in 2000–2001*	97%	62%	4%	28%	82%
11th and 12th Graders Enrolled in 2000–2001*	10%	~13%	Not available	< 2%	~15%

**See Appendix H for an explanation of the sources and assumptions behind these figures.*

---

[88] Some Running Start classes are offered through distance learning or on the high school campus.

[89] Prospective Running Start students must score at college level on a standardized placement test to enroll at a community or technical college. Some colleges require two parts (English and math); others just one. The passing score is set by each college and can vary, although staff from the State Board of Community and Technical Colleges (SBCTC) report variation among colleges is less than 3 percent. Personal communication with Sally Zeiger-Hanson, Tech Prep Coordinator, SBCTC, February 2001.

[90] If a student takes one IB test, the cost is $180. The full complement of eight IB exams costs $525, but schools often pay a portion of the fee. High schools pay $8,000 to offer an approved IB program. Personal communication with Paul Campbell, International Baccalaureate Organization, June 2001.

[91] A 1999 survey by Everett Community College of 18 College in the High School programs showed a range of charges. Students may pay nothing if the high school subsidizes the course.

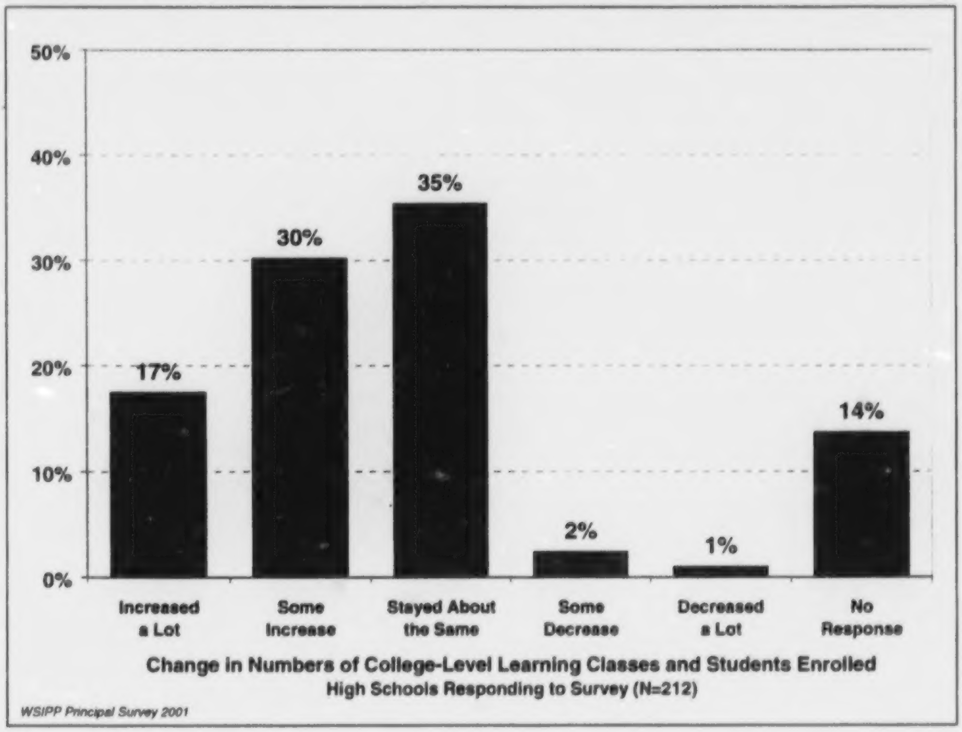
BEST COPY AVAILABLE

Student participation in Running Start continues to grow, although the pace has slowed. Running Start has been an option for students across the state since 1992–1993 when approximately 3,350 students attended community and technical colleges through the program.[92] In 1994, the Legislature expanded Running Start to include Eastern, Central, and Washington State Universities to increase access for students with no nearby community college.[93] After several years of rapid expansion, the rate of increased participation in Running Start has slowed to under 10 percent. However, this rate still outstrips overall enrollment growth in grades 9 through 12 (2 percent).[94] For the 2000–2001 school year, 13,677 students attended Running Start.[95]

About half of high schools report recent increases in college-level learning options other than Running Start; very few report declines in courses or student enrollment. Forty-seven percent of high schools responding to the survey reported that Advanced Placement, College in the High School, or International Baccalaureate courses and student enrollment in those courses have increased in the last three years (see Figure 17).

Figure 17

Have Courses or Student Enrollment in Advanced Placement, International Baccalaureate, or College in the High School Changed in the Last Three Years?



WSIPP Principal Survey 2001

---

[92] State Board of Community and Technical Colleges, *Running Start Annual Progress Report 1999–2000* (Olympia, WA, 2000), 2.

[93] RCW 28A.600.300.

[94] In 1995–96, the growth in full-time equivalent students in Running Start was 20 percent. In 1999–2000, the growth rate was 7 percent. LEAP Enrollment Data, February 2001.

[95] SBCTC, Running Start Headcount Enrollment 2000–2001 and e-mail from Doug Scrima, HECB, on Fall 2000 enrollment in four-year universities.

According to surveyed high schools, barriers to expanding college-level learning include funding for staff training and materials and accommodating small specialized classes into the school schedule. Others questioned the willingness of colleges to collaborate on College in the High School courses and cited reluctance by some students to volunteer for more challenging work. High schools are also concerned that in the future, demand for remediation and assistance for struggling students could limit their ability to offer college-level learning opportunities. As high schools increase graduation requirements by requiring more credits and activities such as culminating projects, students may have less time to enroll in college-level learning.

High schools provide mixed reports about the impact of Running Start on other college-level learning options. As shown in Figure 17, few high schools responding to the survey reported declines in college-level learning options such as Advanced Placement, College in the High School, or International Baccalaureate. Approximately one-fourth of the high schools reporting stable or declining college-level learning cited Running Start as a reason. Others mentioned lack of student interest or preparation and a current focus on struggling students rather than advanced students.[96]

In contrast, a few high schools cited Running Start as a contributing factor for the *increase* in college-level learning options such as Advanced Placement and College in the High School.[97] High schools are trying to encourage students to stay on the high school campus by creating options to compete with Running Start. Some suggest that, in order to ensure they have met the state's learning standards, students should earn a Certificate of Mastery before being eligible to participate in Running Start.

According to the SBCTC, high schools that lose more students to Running Start report that Advanced Placement programs are being diminished by the lower numbers of students left to participate in college-level learning on the high school campus.[98] However, based on the Institute's survey, no clear relationship was found between the percentage of students enrolled in Running Start and the percentage enrolled in college-level learning classes.[99]

---

[96] Nine of 39 high schools reporting either no change or declines in other college-level learning options cited Running Start as a reason.

[97] Twelve of 87 high schools cited competition with Running Start as a reason for increases in other college-level learning options.

[98] SBCTC, *Running Start Annual Progress Report October 2000* (Olympia: WA, 2000), 5.

[99] SBCTC and OSPI enrollment records could be combined for 304 high schools. In about 28 percent of these high schools, the proportion of juniors and seniors enrolled in Running Start exceeds 10 percent. Results of the WSIPP Principal Survey could be added to this analysis for 178 high schools. High schools with more than 10 percent of their junior and senior classes enrolled in Running Start were slightly more likely to report declines in other college-level learning options, but the numbers were very small and not statistically significant.

Case Study Perspectives

Most educators, students, and parents in the case study schools believed Running Start offered an excellent opportunity for "certain types" of students, primarily those who no longer wanted to participate in the social life and activities of a high school. Most did not believe courses at the community college were more challenging academically but did believe students needed to be more independent and responsible to succeed in a college environment. Educators and parents were concerned about the high school being able to maintain other options if students and funds were siphoned off to Running Start. Students said the primary reason they did not attend Running Start was to stay actively involved in their high schools.

Many educators said their ability to expand on-campus college-level learning was limited not only by the draw of free tuition from Running Start but also an unwillingness on the part of students to undertake challenging classwork that could risk their GPA. Students also wanted to be rewarded (for example, by weighted grades) for taking honors or Advanced Placement courses.

The Impact of Running Start on student performance is not clear. Researchers at several colleges and universities have surveyed groups of Running Start students.[100] Most students report being highly satisfied with their choice to participate in Running Start and believe the program provides good preparation for college and allows them to make better use of the last years of high school. Most data show that Running Start students have slightly higher GPA and SAT scores than other similarly-aged college students, both while they are in the program and once they enter college.[101]

However, researchers at Western Washington University (WWU) point out that Running Start students are not comparable to other incoming college freshmen, in part because they have already been exposed to the environment and expectations of learning at a college.[102] For indicators such as year-to-year retention and time-to-graduation, the performance of Running Start students at WWU falls somewhere between freshmen and community-college transfer students.[103]

---

[100] Dan Fortier, *A Study of the Outcomes of Students Participating in the Running Start Program Between Fall 1992 and Spring 1994 at Big Bend Community College* (Moses Lake, WA: Big Bend Community College, 1995); Western Washington University, "The Transition of Running Start Program Participants into Western Washington University," *Dialogue 4* (Bellingham, WA, January 2000); Benaya Allison, *The Effects of Early Entry to College on Social Development* (Cheney, WA: Eastern Washington University, 1996).

[101] SBCTC, *Running Start Annual Progress Report 1999–2000*, 2 and 11-17; Tim Washburn, "Running Start Academic Profile and Performance Report for Freshman Students Entering the University of Washington Autumn 1993–Autumn 1998" (Seattle, WA: University of Washington, 1999). See also the Institute's interim report Appendix F: College Data on Student Performance.

[102] Western Washington University, "The Transition of Running Start Program Participants into Western Washington University," *Dialogue 4* (Bellingham, WA, January 2000), 3.

[103] Western Washington University, Office of Institutional Assessment and Testing, *Focus* 4, no. 2 (February 1999).

Data comparing graduation efficiency of Running Start students with other students did not yield a clear picture of whether Running Start students take advantage of their credits by finishing college early.[104]

Some categories of students are more likely to enroll in college-level learning than others. Nationally, the growth in college-level learning has been accompanied by concerns about ensuring *all* students, including minority and low-income students, can take advantage of these options. In 1999, a lawsuit was filed in California alleging that minority students attending high schools that offered few Advanced Placement courses could not fairly compete for admission to college.[105]

Table 6 illustrates that African American, Hispanic, and Native American students are less likely to enroll in Running Start and Advanced Placement courses. Additional analysis of student demographics in college-level learning is provided in Appendix I.

Table 6

Student Demographics: Enrollment in Advanced Placement and Running Start Compared With Total 11th and 12th Grades[106]

	Advanced Placement	Running Start	Total 11th and 12th Grades
Caucasian	84%	86%	78%
Asian American	11%	8%	8%
Hispanic	3%	3%	7%
African American	1%	2%	4%
Native American	<1%	1%	2%

WSIPP High School Survey 2001, SBCTC (Running Start Fall 2000), OSPI (P-105 Fall 2000)

In 2000, OSPI obtained a three-year federal grant to increase Advanced Placement options for low-income students. In the first year, $400,000 was provided to 40 high schools to train teachers, develop curriculum, and plan outreach to encourage students to enroll in Advanced Placement. Additional funds are expected for the next two years of the grant.[107]

---

[104] The Graduation Efficiency Index (GEI) is a method of evaluating the efficiency with which a student earns a degree in terms of credits taken versus credits required. The analysis is made without regard to the time it takes a student to earn the credits and can be applied equally to full and part-time students. GEI data collected for the Institute's interim report was only available from the University of Washington, Washington State University, and SBCTC. In the community and technical colleges, former Running Start students take on average 2.2 more credits than other recent high school graduates, perhaps because they do not necessarily take courses through Running Start that can meet both high school graduation requirements as well as college degree requirements. Analysis of GEI data from four-year institutions shows similar small variations.

[105] Theadora Lurie, "The AP Gap," *Ford Foundation Report* (Spring 2000), 8-9. Further action on the lawsuit has been postponed because the state of California made significant investments in 2000 to expand availability of Advanced Placement courses. Telephone conversation with public relations officer, ACLU of Southern California, June 2001.

[106] As Appendix H outlines, this information should be interpreted with caution for a number of reasons, including over-statement of the proportion of students in AP and possible skew in the proportion of minority students in Running Start due to lack of alignment in SBCTC and OSPI data.

[107] Personal conversation with Larry Norwood, Advanced Placement Program Specialist, OSPI, February 2001; fact sheets from Larry Norwood.

It is too soon to determine if targeted efforts such as this will have an impact on minority participation in college-level learning.

Some other states support college-level learning programs through state-level policies or incentives. Washington created the Running Start program in state statute and provides a funding mechanism that transfers state funds for student FTEs from the school district to the college. Special appropriations to support college-level learning options have been focused only on distance learning. Policies adopted by other states to support college-level learning include the following:

- State funds to offset exam fees (13 states), enhance teacher training (13 states), or provide incentives to schools based on the number of students enrolled in college-level learning courses (8 states);
- State policies that require colleges to accept Advanced Placement exams on a uniform basis (8 states) or weight student grades to favor college-level learning (3 states); and
- State laws to support College in the High School programs (6 states) or provide special funding to offset costs (3 states).

In addition, nine states with Running Start-type programs allow both the school district and the college to claim a student as a state-funded FTE so that neither system is financially penalized for students participating in the program. Additional information on policies to support college-level learning in other states is in Appendix J.

III. School-to-Work Transitions

Nearly every school district participated in the federal School-to-Work grant for at least one year. The federal School-to-Work Opportunities Act (1994) provided five-year grants to states to support local partnerships of school districts, businesses, and post-secondary institutions. Washington received a $27 million grant beginning in 1995, and more than $12 million was allocated to consortia of school districts in partnership with higher education institutions and employer groups.[108] More than 260 school districts were members of a consortium for at least one year; 140 received funding for three or more years.[109]

---

[108] OSPI School-to-Work Summary Sheet Years 1–3 and 1999–2000 School-to-Work Grants, March 3, 2000. Remaining grant funds supported development of industry standards for vocational-technical curriculum in high schools and community colleges (skill standards), outreach to encourage employer participation, models of integrated vocational and academic curriculum, and projects to expand work-based learning.

[109] OSPI School-to-Work Consortia Information 1995–1996 through 1999–2000. During the final two years of the grant, five high schools received an additional $750,000 to serve as demonstration schools in implementing School-to-Work activities: Nooksack Valley, Pasco, West Seattle, Sumner, and Wapato.

Case Study Perspectives

Lake Roosevelt High School is located in the small rural community of Coulee Dam in Eastern Washington. Since the early 1990s, the school has focused its reform efforts on School-to-Work transition. Over time, career exploration has been integrated into all classes and the school culture. Starting in middle school, the guidance counselor and pathways coordinator talk to students and parents to prepare them for high school registration when students are asked to choose a career pathway. As a small school, Lake Roosevelt has a limited number of electives tailored to different pathways, but students are still encouraged to choose their courses based on a career theme. Career themes are also emphasized through the variety of vocational classes available, the integration of workplace skills into regular classes, a student portfolio, and a culminating senior project. Students are strongly encouraged to do several job shadows, and the school makes a special effort to have students visit workplaces throughout the region.

Most high schools are making some use of strategies to support School-to-Work transitions. The federal School-to-Work grant encouraged high schools to integrate vocational and academic curricula and provide work-based learning opportunities (such as internships, job shadowing, and cooperative education).[110] As shown in Figure 18, more than 80 percent of high schools have implemented these strategies to some degree. National research on a group of high schools that have focused on integrating vocational and academic curricula shows that career-bound students in those schools improved their test scores in math and English and enrolled in more rigorous courses.[111]

---

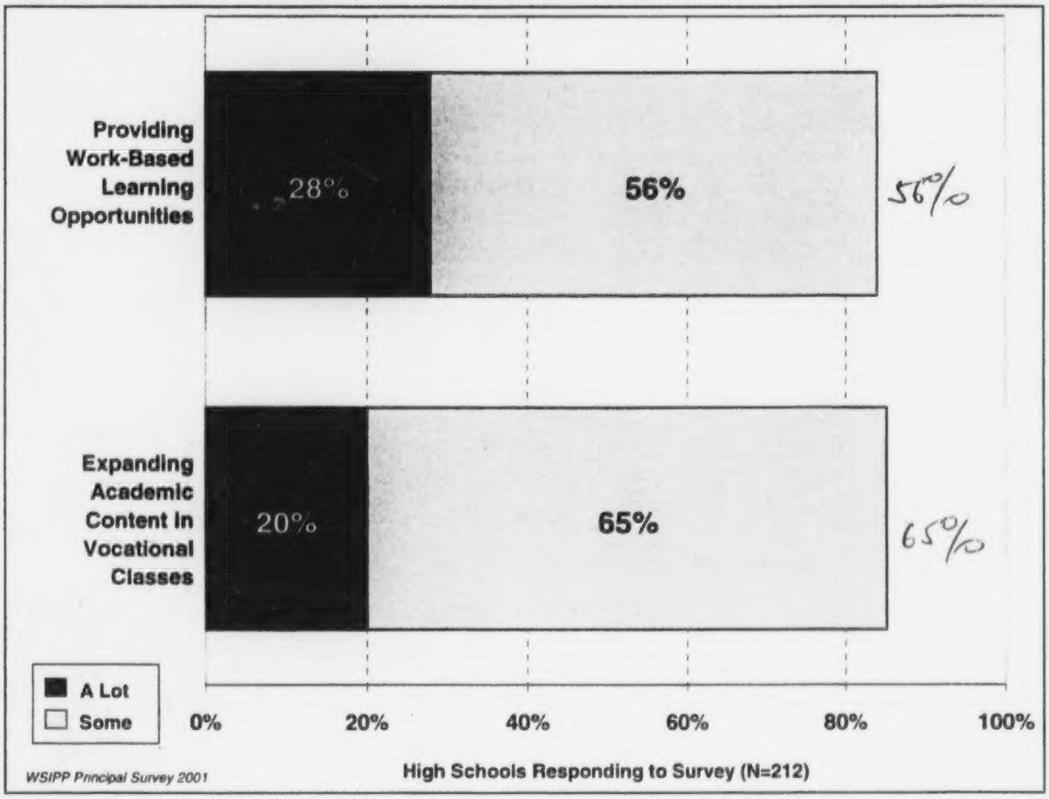
[110] The 1990 amendments to the Carl Perkins Act also required any school district receiving federal vocational funding to integrate academic and vocational education. This could involve a number of different strategies, including increasing applied learning in academic classes and increasing the academic expectations in vocational classes. For additional information on terms, see Appendix K.

[111] High Schools That Work is a national consortia of nearly 1,000 schools attempting to improve the educational preparation of career-bound students (students who might not complete a four-year college degree). Southern Regional Education Board, *The High Schools That Work Assessment*, <http://www.sreb.org/Programs/hstw/96 assessment>, 1996. (Printed January 26, 2000).

BEST COPY AVAILABLE

Figure 18

To What Extent Are High Schools Implementing School-to-Work Strategies?



WSIPP Principal Survey 2001

A study of 65 Washington high schools showed that most increased the number of School-to-Work activities over time, but few reached high levels of implementation or student participation.[112] The Workforce Training and Education Coordinating Board (Workforce Board) studied a sample of high schools receiving federal grant funds to examine their progress in implementing various School-to-Work activities. Study findings included the following:

- In nearly all schools (92 percent), all or most seniors had taken a career interest survey. In most schools (67 percent) all or most seniors had received individual counseling on college and career planning.[113]
- In slightly less than half the schools (43 percent), most seniors participated in at least one of the following school-based learning activities: career pathway, career academy, Tech Prep course, or youth apprenticeship.[114]

---

[112] The Workforce Board conducted a net impact evaluation of the federal School-to-Work grant, which was completed in 2001. The evaluation included baseline and follow-up surveys of a sample of 65 high schools in 1995–96 and 1998–99, surveys of two cohorts of 1,000 students who graduated from those schools, and a survey of employers. Information about students' post-high school employment and education was also analyzed.

[113] Social Policy Research Associates (SPR), *Impact Findings for an Outcomes Evaluation of School-to-Work Transition Initiatives in Washington State: Draft Final Impact Report*, (Oakland, CA: January 2001), III–2.

- Nearly all schools (96 percent) provided work-based learning activities such as internships, cooperative education, and school enterprises (e.g., student stores). In most schools (59 percent), only one-fourth of seniors participated in at least one activity.[115]
- Students from the study schools were most likely to participate in low-intensity School-to-Work activities, such as completing a career questionnaire or attending a career talk. However, they found these activities the least helpful in preparing them for the future.[116]

The study found that schools had progressed during the five years of the federal grant in terms of increasing School-to-Work activities, student participation, and overall intensity of their programs. However, progress was slower than anticipated. Schools identified lack of staff, time, and money as a serious barrier to implementation.[117] There is currently no state funding to support School-to-Work implementation.

Student feedback about School-to-Work activities is positive, but few clear impacts have been identified regarding student performance. Washington students who participated in School-to-Work activities were more likely than non-participating students to report being satisfied with the way high school had prepared them for the future.[118] Various national studies show that students who participate in School-to-Work activities take challenging classes, have better attendance, are less likely to drop out of school, and are prepared for college.[119] But even for the most intensive programs, researchers have not found an impact on student test scores.[120]

The Workforce Board study analyzed whether students from high schools with highly developed School-to-Work programs were more likely to attend college but could find no effect. For Washington students who did not attend college, no discernable effect of School-to-Work activities was found on employment rates or wages, but students had been in the post-high school workforce for less than one year.[121]

---

[114] SPR Associates, III–3. For additional definitions of terms, see Appendix K.

[115] Ibid, III-6. This finding is consistent with the WSIPP Principal Survey: high availability of work-based learning opportunities but low use.

[116] Ibid, III-2.

[117] Ibid, III-25. Sixty-three percent of high schools said lack of staff, time, and money were serious barriers to implementation. Fifty percent said resistance of school staff was somewhat of a barrier, and 12 percent said it was a serious barrier.

[118] Ibid, III-10. Students also were more likely to say their high school was helpful in developing skills such as cooperating and communicating with co-workers and supervisors, setting goals for the future, and understanding what is required for success.

[119] Katherine Hughes et al., *School-to-Work: Making a Difference in Education* (Teachers College: Columbia University, 2001), 11. However, most studies have examined intensive programs such as career academies or youth apprenticeships.

[120] Ibid, 20.

[121] Social Policy Research Associates (SPR), *Impact Findings for an Outcomes Evaluation of School-to-Work Transition Initiatives in Washington State: Draft Final Impact Report* (Oakland, CA, January 2001), V-5.

IV. Vocational Education

Statewide enrollment in vocational education continues to grow, but the pace has slowed in the last five years. Vocational programs are offered both by high schools and skills centers. The ten skills centers throughout the state serve multiple school districts to create economies of scale for advanced programs requiring specialized equipment and instruction.[122]

For 1999–2000, the proportion of full-time equivalent students (FTEs) in vocational education was 18 percent of overall FTE enrollment in grades 9 through 12, compared with 15 percent in 1989–1990. The proportion of FTEs enrolled in skills centers has remained unchanged (1.3 percent of enrollment in grades 9 through 12).[123]

However, the rate of growth in FTE enrollment in vocational education has slowed considerably in the last five years. Between 1990 and 1995, the cumulative growth in vocational FTEs was double the cumulative growth in overall high school enrollment (34 percent compared with 17 percent). Between 1996 and 2000, the cumulative growth in vocational FTEs was 19 percent compared with 15 percent growth in overall enrollment.

All students are required to take at least one vocational course, but few students complete a sequence of vocational courses. Under the SBE's graduation requirements, all students must have one credit in occupational education to graduate.[124] However, in 1999–2000, 14 percent of 12th grade students had completed a sequence of vocational courses (9,294 students). To complete a sequence, students must take at least 360 hours of courses in the same program area, such as Introductory Woodworking followed by Carpentry.[125] One Washington study found that among students who immediately enter the workforce after high school, those who had completed a vocational sequence worked more and had a higher hourly wage in the first year after graduation.[126] Efforts by OSPI and high schools to increase the academic and technical rigor of vocational courses were discussed in Section II of this report.

Although educators express concerns about the future of vocational education, few high schools report eliminating vocational courses as a result of the EALRs and WASL. Case study participants expressed concern that vocational education options could be reduced in the future because staff resources would be diverted to remediation and/or students needing remediation would have fewer opportunities for elective classes. For skills centers, there is concern that if students focus solely on academic classes in 9th and 10th grades, they will not take introductory vocational courses at the high school and will not be prepared for the advanced training offered by skills centers.

---

[122] Skills Centers are located in Vancouver, Bremerton, Tumwater, Wenatchee, Sea-Tac, Everett, Spokane, Kennewick, Yakima, and Port Angeles.

[123] For the 1999–2000 school year, high schools reported about 54,500 FTEs in vocational education and 3,400 FTEs in skills centers (plus an additional 480 FTES enrolled in summer school at skills centers). LEAP enrollment data, February 2001.

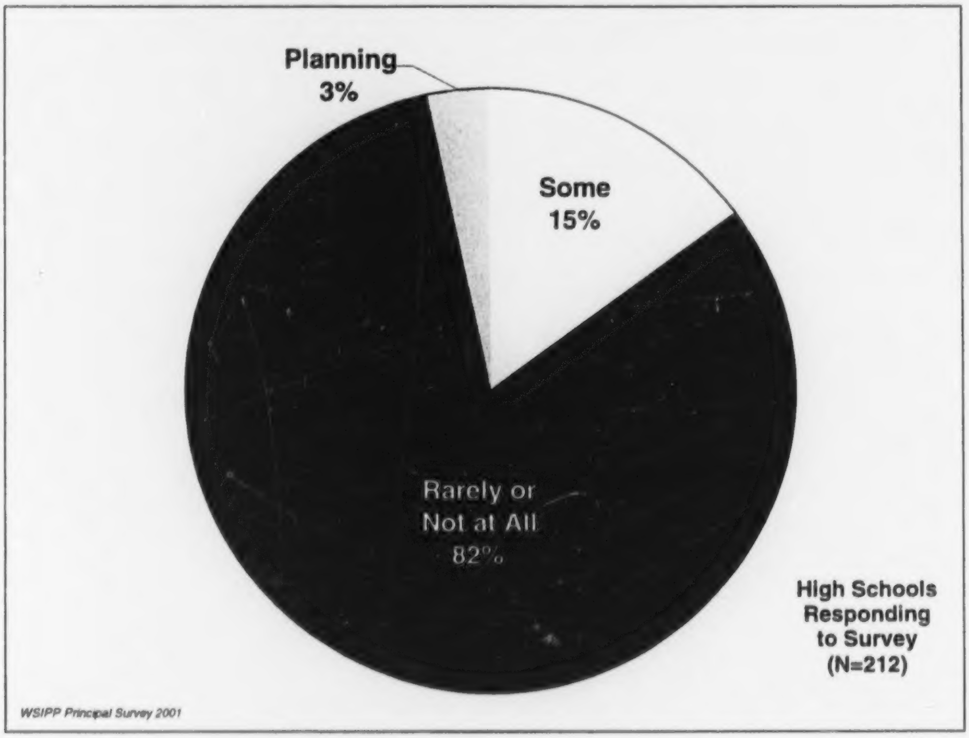
[124] In 1999–2000, 66 percent of students in grades 9 through 12 enrolled in a vocational course. OSPI P210-Voc Enrollment data, 1999–2000.

[125] OSPI P210-Voc and P105 October Headcount Enrollment Data, 1999–2000. A 360-hour course sequence could represent two years of one-hour classes or one year of a two-hour class (or another combination).

[126] David Pavelchek, *The Graduate Follow-up Study—Class of 1998* (Olympia, WA: Office of the Superintendent of Public Instruction, February 2000 Draft). The Graduate Follow-up Study is a joint effort of the Workforce Board, OSPI, and the State Board for Community and Technical Colleges. The information does not necessarily represent the experience of all students across the state because both school districts and individual students volunteer to participate. For 1998, the Graduate Follow-up Study covers about 25 percent of students who complete a vocational sequence in the state.

As Figure 19 shows, 82 percent of high schools reported little or no elimination of vocational courses as a result of state education reform, but 18 percent reported some impact has already occurred or is in the planning stages.

Figure 19
To What Extent Are High Schools Eliminating Vocational Courses as a Result of State Education Reform?



WSIPP Principal Survey 2001

V. Tech Prep

Articulation agreements were the primary activity of early Tech Prep. Federal Tech Prep grants were provided to states to develop training programs to prepare students for technical careers that would entail two years of high school coursework followed in sequence by two years of post-secondary education (2+2 programs). Some four-year institutions have also created 2+2+2 programs leading to baccalaureate degrees in technical fields such as information systems or computer programming. Washington has received approximately $2 million each year since 1991 for consortia of community and technical colleges, high schools, and business and labor partners to create these programs.

Over the years, colleges and high schools in Washington have organized into 22 Tech Prep consortia and created hundreds of different articulation agreements.

The purpose of articulation is to align the content of high school vocational courses with those offered at a community or technical college so that students can complete an orderly sequence without duplication or gaps. Faculty from the college and high school create agreements specifying, for example, that if a student completes Auto Shop 3 and 4 at the high school, he or she is ready to enter Auto Shop 201 at the community college without having to take Auto Shop 101. Ideally, the student could also receive credit at the community college for having completed an equivalent course.

The current focus is on ensuring college credit for Tech Prep courses. Despite the number of articulation agreements, no consistency existed in the state regarding administration of the agreements or whether they were honored by colleges. Until now, no data was available on whether students receive college credit for high school courses as a result of Tech Prep.[127] In May 2000, the State Board for Community and Technical Colleges (SBCTC) adopted a new statewide policy for Tech Prep called "Direct Transcription."

As soon as students successfully complete a Tech Prep course with a grade of B or better, they can apply to a community or technical college and receive a transcript with college credit for the course. Colleges only charge a small processing fee ($10 to $15) for the credit.[128] This statewide policy should also improve students' ability to transfer credits among colleges. Thirty-one of the state's 34 community and technical colleges are using direct transcription as the basis of their Tech Prep articulation agreements.[129]

In 1999–2000, fewer than 10 percent of 12th grade students successfully completed a Tech Prep course sequence. In 1999–2000, 15 percent of 11th and 12th grade students (21,684 students) enrolled in a Tech Prep course where they could have received college credit for successful completion.[130] A more rigorous indicator of student participation is "Tech Prep completion," where a student completes the high school portion of an articulated sequence of courses with a grade B or better and is ready to enroll in the community or technical college portion of the sequence. The number of courses in a sequence varies by subject and is part of the articulation agreement. In 1999–2000, 6 percent of 12th grade students (4,052 students) had completed a Tech Prep course sequence.[131]

The SBCTC anticipates rapid growth in Tech Prep direct transcription, but the first data collection under the policy is for 2000–2001 and was not available for this report. Therefore it is not yet known how many of the students who enrolled in a direct transcript course took advantage of their eligibility to receive college credit.

---

[127] SBCTC, *Tech Prep in Washington State: Statewide Articulation Through Direct Transcription, A Background Report* (Olympia, WA, January 31, 2000). Lack of information about the impact of articulation agreements has been identified as a problem in most states, not just Washington. Mathematica Policy Research Inc., *The Final Report of the National Tech-Prep Evaluation* (Washington D.C.: U.S. Department of Education, 1998), 57.

[128] SBCTC, *Tech Prep Education: Guidelines for Statewide Articulation Using the Direct Transcription Method* (Olympia, WA, May 24, 2000).

[129] Personal communication with Sally Zeiger-Hanson, Tech Prep Coordinator, SBCTC, February 2001. Also starting in 2000, federal grant funds are distributed to consortia based in part on the number of high schools served and the number of students receiving college credit for Tech Prep classes.

[130] OSPI P210-Voc Enrollment data, 1999-2000. Unduplicated count of students listed as Direct Transcript.

[131] OSPI P210-Voc Enrollment data, 1999-2000. Unduplicated count of students listed as Tech Prep Completers.

VI. Distance Learning and Technology Certification

School size and location make a difference in whether distance learning and technology certification are available in high schools. According to responses to the Institute's survey, smaller high schools are more likely than larger schools to offer distance learning in order to provide students with options not otherwise available on the high school campus.[132]

In contrast, large high schools and those in the Central Puget Sound and Northwest areas of the state are more likely than other high schools to report offering technology certification programs where students can receive training to work in technology-related fields.[133] The more significant predictor is location. Even small schools in these areas are more likely to have technology certification than small schools elsewhere in the state.

There is widespread interest in using distance learning to provide opportunities for college-level learning. A number of high schools that responded to the Institute's survey cited new availability of distance learning as one of the reasons for their expansion of college-level learning courses.[134] During the 1999–2001 biennium, the legislature allocated $500,000 to support internet-based curriculum specifically for courses where students can earn both high school and college credits, such as Advanced Placement. Funds were allocated to 107 high schools in 80 different school districts. According to OSPI, more than 1,440 students benefited from the courses in 1999–2001.

In addition, OSPI has received an $850,000 federal grant in partnership with APEX Learning to expand Advanced Placement distance learning courses, teacher training, and exam review.[135] In the spring of 2001, Washington students could access the APEX exam review at no cost.[136]

Information on use of distance learning for college-level learning in Washington is not comprehensive. The state and school districts have made substantial investments in educational technology through the K–20 telecommunications network and other grant programs.[137] However, only 8 percent of the high schools responding to the Institute's survey reported offering Advanced Placement courses using distance learning (mostly via the Internet), and only 6 percent reported offering College in the High School courses.[138] More schools (25 percent) offered regular high school courses (such as foreign language or advanced math) using distance learning.[139] Information about the number of students enrolled in distance learning courses was not readily available from surveyed high schools.[140] Little research exists of how extensively Washington schools are using technology both within classrooms and for distance learning.

---

[132] For schools under 500 students, 56 percent had distance learning compared with 31 percent of schools with more than 1,500 students. Differences in response based on school size were statistically significant. The data did not reveal any significant relationships between the availability of distance learning and the school's geographic location.

[133] A school's geographic location did not make any difference in the response, but this could be because schools were divided into five groups by county, not by urban versus rural locale (See Appendix A).

[134] WSIPP Principal Survey 2001. In response to an open-ended question, more than ten schools reported distance learning allowed additional Advanced Placement and College in the High School classes to be offered.

[135] APEX Learning Inc. is a Washington State-based online learning company that began operation in 1998, offering four Advanced Placement courses in calculus, statistics, government, and microeconomics. Andrew Trotter, "New Company Hopes to Score Big With Online Advanced Placement Courses," *Education Week*, February 16, 2000.

[136] Personal communication with Larry Norwood, Advanced Placement Program Specialist, OSPI, February 2001; fact sheet materials from Larry Norwood.

The legislature has encouraged high schools to offer technology certification through grants provided during the 1999–2001 biennium.[141] Technology certification programs allow high school students to receive training and then attempt to have their level of knowledge and skills certified by a private company using standards set by the technology industry. Students learn how to create and maintain computer networks, use common software applications (such as Microsoft Word, Excel, and Access), and design and build web pages. Students pay approximately $100 to take a certification exam. Some schools or companies offer discounts for students in need or those who score well on the exam.[142]

In 1999–2000, 30 school districts and consortia received $810,000 in state grants to expand technical certification programs in schools where they were already offered.[143] An additional $1.7 million for 2000–2001 went to 82 districts and consortia both to start new programs and expand existing ones. Funds were used to improve access to the Internet, purchase and install networks or computer equipment, train teachers, and acquire curriculum materials.

VII. Alternative Education

Alternative education is not clearly defined, so it is not possible to determine how many programs exist. An alternative high school could be a separate school or a program within a school. OSPI lists 177 schools serving high school students that define themselves as alternative. In 1999, these schools enrolled more than 22,500 students.[144] However, if an alternative program operates within a school, the district may choose to report enrollment separately or include these students as part of the main school, making it difficult to determine how many programs exist or how many students are served.[145]

---

[137] Currently, 294 out of 296 school districts are connected to the K–20 network for internet, data, and video telecommunications, and an estimated 95 percent of classrooms have network connections. However, 45 percent of schools report having outdated computers. Dennis Small, Educational Telecommunications Program Supervisor, OSPI, February 2001.

[138] College in the High School courses are offered by a college or university on the high school campus. For the purpose of this analysis, Running Start is not included.

[139] Approximately half the regular high school courses offered through distance learning are correspondence courses, and more than a third rely on the Internet.

[140] Data on distance learning courses comes from 203 high schools responding to the Institute's High School survey. Analysis of responses on student enrollment in distance learning revealed too many reporting errors and missing information to be considered reliable.

[141] OSPI, *1999-2000 Information Technology Project Summary* (Olympia, WA, June 2000); OSPI, *2000-2001 Information Technology Project Summary* (Olympia WA, April 2001).

[142] Keiko Morris, *Tech Savvy: Companies Partner With Schools to Give Hands-on Training,* The Seattle Times, November 15, 2000.

[143] OSPI, *1999-2000 Information Technology Project Summary* (Olympia, WA, June 2000); OSPI, *2000-2001 Information Technology Project Summary* (Olympia WA, April 2001).

[144] OSPI building data, October 1999.

Since 1996, the state has provided start-up grants to establish alternative education programs for at-risk youth. The target population for alternative program grants is students who have left school, are disruptive, are involved in the court system, or have been suspended or expelled.[146] Since 1996, 77 programs have received grant funding. Demand for grants has consistently exceeded available funds. Districts use most of the money to hire teachers and spend the remainder on training, counseling, curriculum, and facility modifications.[147] Not all programs serve high school students, and recently, interest has been growing in middle school programs.

Alternative learning experience programs have grown dramatically since 1995. Alternative learning experiences are a specific option where students combine on- and off-campus learning through a contract that stipulates number of hours of classes, learning activities, consultation, and review of student progress.[148] The supervising school district can claim state FTE funding for students enrolled in alternative learning experiences.

Prior to 1995, only high school students could be claimed by a district under an alternative learning experience contract. As a result of increased demand for distance learning and programs to support primarily home-schooled students, OSPI amended the rules to allow K–8 students to be claimed as state-funded FTEs. A 1999 study of 97 school districts found the following:[149]

- The number of alternative learning experience programs increased 162 percent between 1995 and 1999.
- Nearly half the growth was in parent-partnered programs relying primarily on home-based instruction under teacher supervision. However, parent-partnered programs enroll few high school students.
- Over 70 percent of estimated enrollment in alternative learning experiences is students in grades 9–12.
- Over half of current enrollment in alternative learning experiences is at-risk students. Half are students who are missing credits needed to make progress toward graduation.[150]

Providing state funding for alternative learning experiences has not been without controversy. New rules proposed by OSPI would allow districts additional flexibility in hours of direct contact and permit students to be considered enrolled part-time.[151] However, the rules have been delayed, in part due to concerns about possible fiscal impact. Some also believe additional accountability is needed to ensure schools provide sufficient oversight of the learning contracts.[152]

---

[145] Personal communication with Martin Mueller, OSPI, February 2001. For example, the Washington Association for Learning Alternatives (WALA) claims more than 500 alternative programs among its membership, with about 80 percent serving high school students; personal communication with Bob Wiley, WALA, January 2001.

[146] OSPI bulletin to Educational Service District superintendents, *Addendum to Bulletin No. 34-99 Education Support* (Olympia, WA, April 19, 2000).

[147] OSPI, *Report to the Legislature on Alternative Schools and Programs* (Olympia, WA, January 1999), 6.

[148] WAC 392-121-182. Students can enroll in five or more hours of class a week or fewer than five hours and receive a one-hour consultation with a teacher. Documented learning activities in a contract must total 25 hours a week.

[149] OSPI, *Alternative Learning Experiences* (Olympia, WA, 1999), 15, 20.

[150] Ibid, 17. Students may be in more than one category.

State education reform may increase demand for alternative education programs and strategies. The most common feature of alternative education programs is curriculum and instruction that are highly individualized for each student, offering a mix of academic and hands-on learning. Other features are strong teacher-student relationships, high expectations for student academic achievement and behavior, and a clear mission and focus on delivering education to students needing to learn in a different way than most comprehensive high schools offer.[153] As high schools search for ways to help all students meet the state's learning standards and provide remediation for those who do not pass the WASL in 10th grade, there may be additional demand for programs using individualized learning.

Summary: Providing Learning Options for 11th and 12th Grades

- The state statute pertaining to students who have completed a Certificate of Mastery lists a number of ***learning options for students, such as Advanced Placement, Running Start, Tech Prep, and vocational-technical education***. According to the Institute's survey, most of these options ***are readily available*** in high schools across the state.

- ***The quality of information about how many 11th and 12th grade students participate in these options is mixed.*** Student enrollment in Advanced Placement, Running Start, and other college-level learning is growing, although some categories of students are more likely to enroll in these options than others. Baseline data is available for students who specialize in career and technical preparation. For options such as work-based learning, distance learning, technology certification, or alternative education, data about student participation is not comprehensive.

- ***National and state research do not provide a clear indication that one option has more effect than others*** on indicators such as student satisfaction, commitment to learning, performance, or post-high school outcomes. The options available in high schools attract a range of students based on their different interests and plans.

- High schools identify ***some barriers to continued expansion of options*** for 11th and 12th grades, such as funding for staff training and materials, accommodating small specialized classes into the school schedule, and lack of student interest. Some opportunities may compete with others (e.g., Running Start and other college-level learning), but the net effect of this competition is not clear.

---

[151] Personal communication with Martin Mueller, OSPI, February 2001.

[152] Memo from Marcia Riggers, OSPI to WAC Development Team Members, <http://www.k12.wa.us/LearnTeachSupp/Alternative/WACupdate.asp> and Craig Coley "Home-Schoolers Critical of Public Alternatives," *The Olympian*, February 11, 2001.

[153] OSPI, *Alternative Learning Experiences* (Olympia, WA, 1999), 4-5.

- It is ***not clear how the Certificate of Mastery will influence learning options for 11th and 12th grades***. High schools are concerned about the future need to provide additional assistance for students who do not pass the WASL in 10th grade. Competition for resources to educate 11th and 12th grade students could limit high schools' ability to continue to offer a range of options for students. Another possible impact may be an increase in demand for alternative education programs and strategies.

CONCLUSION

This report summarizes how Washington's public high schools are responding to expectations to improve student performance and outcomes through increased rigor, relevance, and options for student learning.

High schools are increasing rigor by focusing on state standards, but the impact on students who will have difficulty meeting increased expectations is unknown. High schools are also developing activities to make learning more relevant and to assist students with post-high school planning, but more work is needed for these activities to reach all students. Learning options for 11th and 12th grades are readily available in high schools across the state. Less is known about student participation in these options.

It takes time, effort, and commitment by high schools to increase rigor, relevance, and provide a range of learning options for high school students. National and state research provide little guidance for policymakers on which activities or programs are most likely to have a positive effect on student performance or student outcomes.

It is not clear how the Certificate of Mastery will influence 11th and 12th grades, especially if it is the primary state accountability measure for high schools.

The Institute's study identifies a number of steps policymakers could take to influence further implementation of education reform in high schools:

- Monitor trends or decisions regarding high school dropout rates, high school graduate follow-up, and the State Board of Education's assurance that all students have an opportunity to learn state standards.
- Obtain additional information about the success of models to help struggling high school students, alternative education, and smaller learning communities.
- Debate or discuss adjustments or alternatives to the WASL, the level of state guidance for culminating projects, plans, and pathways, and whether high schools should be held accountable by the state for other student outcomes in addition to the Certificate of Mastery.

Overall Findings

A fundamental premise of Washington's education reform is to raise achievement for all students. The EALRs define a common set of standards for what all students are expected to know and do, and the WASL measures student performance on some of those standards. Students who pass the 10th grade WASL will receive a Certificate of Mastery, but the Certificate of Mastery is not the only requirement for graduation. Similarly, the knowledge and skills defined in the EALRs are not the only skills students will need to be admitted to college or be successfully employed after high school. While there is a statewide, common definition for the EALRs and Certificate of Mastery, what students need beyond the Certificate of Mastery is defined not only by state policies but also by local school districts, institutions of higher education, and employers.

The Legislature directed the Institute to examine high school educational opportunities and programs at a time when state education reform is still at a relatively early stage of moving into high schools. The Institute's interim report provided baseline information on Washington high school student performance using a number of indicators of educational attainment and educational proficiency. This final report summarizes how Washington's public high schools are responding to multiple expectations to improve student performance and student outcomes through increased rigor, relevance, and options for student learning.

- **Most high schools are increasing rigor by focusing on state standards, but the impact on students who will have difficulty meeting increased expectations is unknown.** Much current activity in high schools is being driven by the EALRs and WASL, especially in 9th and 10th grades. Study participants report a positive impact from having the EALRs serve as a common framework for curriculum and instruction. English and math are the main targets of increased graduation requirements, restructuring of curriculum, and changes in instructional practices. However, high schools are concerned about remediation for the WASL and high school dropout rates. Educators, parents, and students hold diverging opinions about relying on the WASL as a graduation requirement.

- **Most high schools are developing activities to make learning more relevant and assist students with planning for the transition after high school, but more work is needed for these activities to reach all students.** More than half the high schools currently use portfolios, culminating projects, and educational plans with students. Two-thirds of high schools use career-themed educational pathways to help students explore their future options. These strategies share common objectives: encourage all students to take an interest in what they are learning, assess critical thinking and problem-solving skills, and assist students with making career and educational decisions. However, all students participate in portfolios, projects, or pathways in less than one-fourth of high schools. In about one-third of high schools, all seniors prepare portfolios or culminating projects.

- **Learning options for 11th and 12th grades are readily available in high schools across the state. Less is known about the extent of student participation in these options.** Enrollment in college-level learning is growing and could total one-fourth of 11th and 12th grade students. Baseline data indicates approximately 15 percent of graduates specialize in career and technical preparation. Investments in School-to-Work have led schools to create opportunities for work-based learning, and there is increased interest in using technology to create options such as distance learning and technology certification. Demand could increase for alternative education programs and strategies. However, for these other options, data about current student participation is not comprehensive.

- **It takes time, effort, and commitment to increase rigor, relevance, and provide a range of learning options for high school students.** Time topped the list of challenges high schools reported facing in implementing state education reform, followed closely by concerns about funding and staff.[154] Staff need time to discuss, plan, and develop changes to curriculum or other projects. The experience of the case study schools suggests that, in order to be effective, activities such as portfolios, culminating projects, and educational pathways need to be reinforced through classroom assignments, counseling, discussions with teachers, and activities such as job shadows, internships, and service learning. This level of integration takes a great deal of time to implement. Teachers are concerned about covering an increased amount of material in classes while also providing students opportunities to work on other activities. Furthermore, it may take several years for changes to become ingrained in the school culture and for staff and students to adjust to new expectations.

- **National and state research provide little guidance for policymakers on which activities or programs are most likely to have a positive effect on student performance or outcomes.** Research findings are not conclusive on whether portfolios, culminating projects, or educational pathways make learning more relevant for students or affect student performance. Various studies have found some positive results (using a variety of measures) for students who participate in Running Start, take an integrated academic-vocational curricula, specialize in career and technical preparation, or participate in School-to-Work activities. Each option attracts different students based on their interests and plans. The success of high schools in making learning more relevant and providing options for students beyond the Certificate of Mastery may have to be measured by examining indicators such as high school dropout rates, graduation rates, and students' educational and career pathways after high school. However, current state data for these indicators is not complete or accurate.

- **It is not clear how the Certificate of Mastery will influence 11th and 12th grades, especially if the Certificate of Mastery is the primary state accountability measure for high schools.** State statute specifies that the Certificate of Mastery is not the only requirement for high school graduation. However, it is the most clearly defined and highly publicized expectation for both high schools and students. Multiple parties, including the State Board of Education, local school districts, institutions of higher education, and employers each have a role in defining additional expectations beyond the Certificate of Mastery, but not all of these standards apply to all students. High schools are concerned about the need to provide additional assistance for students who do not pass the WASL in the 10th grade. Competition for resources could limit high schools' ability to offer activities and options that make learning more relevant for students and allow students to specialize based on their individual interests and post-high school plans.

---

[154] WSIPP Principal Survey 2001. Out of 170 responses to an open-ended question about the challenges faced by high schools, 35 percent of principals cited inadequate time to implement changes, 22 percent said funding was the biggest challenge, and 19 percent cited concerns about staffing.

What Additional Steps Could Policymakers Take to Influence Education Reform in High Schools?

Based on the research literature reviewed for this study and the study findings, the Institute cannot recommend any single program or activity over others for state funding and support. However, the Institute's study raises a number of issues for policymakers to consider as high schools implement state education reform and make changes to educational opportunities and programs for students. Policymakers have opportunities to influence further implementation of education reform in high schools. Options for action include monitoring trends or decisions being made by OSPI or the SBE, obtaining additional information from data or other research to guide future policy decisions, and debating or discussing issues further (see Table 7).

Table 7

Additional Steps for Policymakers to Influence Education Reform in High Schools

Options	Issues
Monitor Trends or Decisions	• What happens to ***high school dropout rates***. • What happens to ***students after they graduate***. • How the SBE assures that all students have an ***opportunity to learn state standards***.
Obtain Additional Information	• What ***models of assistance to struggling students*** are successful in high schools. • Enrollment and effectiveness of ***alternative education*** programs and strategies. • How successful are initiatives to create ***smaller learning communities.***
Debate or Discuss Further	• Whether ***adjustments or alternatives*** to the WASL should be considered. • Level of ***state direction, guidance, or assistance*** for culminating projects, educational plans, and educational pathways. • Whether high schools should be held ***accountable for other student outcomes in addition to the Certificate of Mastery.***

Monitor Trends or Decisions

- ***High School Dropout Rates.*** There is concern that increased rigor may cause students who believe they cannot succeed to drop out of school. Policymakers may want to monitor high school dropout rates closely. Current dropout rates lack accuracy because there has been no uniform student identifier from year to year to match students who may have transferred to another school or dropped out and re-entered school. OSPI expects to have a voluntary statewide uniform student identifier to test during the 2001–2002 school year in up to ten school districts.

- ***High School Graduate Follow-up.*** Since 1992, *The Graduate Follow-Up Study* has provided information on students' employment or enrollment in college during the first year after graduation. Although the number of schools participating has steadily increased, there are still major limitations to the study. Records for almost half the study's students could not be matched to college and employment data bases. Although there is currently no complete or accurate picture of what happens to Washington's high school graduates, these indicators offer one way to determine if efforts to increase the rigor and relevance of learning in high school have an effect on student outcomes.

- ***SBE Assurance of Students' "Opportunity to Learn."*** Before the Certificate of Mastery is put into place, a key aspect of the state's assessment system that must withstand legal scrutiny is consistency between what is tested and what is taught in the schools. In other words, students must have the opportunity to learn the material of any high-stakes assessment. The SBE is charged with determining that the WASL is valid and reliable as a graduation requirement. Other state policymakers may wish to monitor this important decision closely.

Obtain Additional Information

- ***Successful Models to Help Struggling High School Students.*** Most educators in the case study schools expressed concern about how best to assist students who do not pass the WASL in 10th grade. Many national evaluations of extended learning opportunities have been done with elementary and middle school programs rather than high schools. State policymakers could support evaluation of pilot projects aimed at high school students or direct OSPI to identify and disseminate information on successful models of remediation in high schools.

- ***Alternative Education.*** Increased expectations for students may drive additional demand for alternative education programs and strategies. There is currently little information about how many students are served in alternative programs or what type of alternative instructional strategies are effective. The number of students learning under contracts that combine on- and off-campus learning has grown dramatically in recent years, but there are questions about the level of accountability of these contracts. Policymakers could direct OSPI to collect additional data on program availability and student enrollment or conduct more extensive program evaluations of alternative education.

- ***Smaller Learning Communities.*** There is a high level of interest both nationally and statewide in creating small schools and smaller learning communities. State policymakers may want to learn more about the effectiveness of local efforts, including those supported by Gates Foundation grants, before considering whether to provide state support for models of high school redesign.

Debate or Discuss Further

- ***Fine-Tuning the WASL.*** A strong message from high schools is a desire to continue implementation of education reform. However, educators, parents, and students also express concerns about the WASL. Some other states have made adjustments to timelines for implementation or are considering alternative ways for students to demonstrate they meet state standards. The SBE's Certificate of Mastery Committee plans to discuss alternatives to the WASL. State policymakers could monitor the SBE's discussion, find out more about what is happening in other states, or convene further discussions about whether adjustments to the WASL should be considered.

- ***State Guidance for Culminating Projects, Plans, Educational Pathways.*** Current statute provides little guidance for high schools regarding implementation of educational pathways. Concerns have been expressed to the SBE and the legislature about whether culminating projects and educational plans should be a statewide mandate. Policymakers could continue to discuss what level of state mandate, guidance, or assistance is desired to encourage high schools to make learning more relevant for students. OSPI could be assigned a more active role in identifying and disseminating information about best practices or creating guidelines to assist high schools.

- ***High School Accountability Beyond the Certificate of Mastery.*** The A+ Commission has not yet determined additional accountability measures for high schools. Further discussion and debate about what the state expects from both students and high schools in addition to the Certificate of Mastery should be a topic of interest to other state policymakers.

APPENDIX A: RESPONSES TO HIGH SCHOOL SURVEYS

In February 2001, the Institute surveyed 328 high schools, representing nearly all comprehensive public high schools in Washington State and enrolling 96 percent of all public high school students.[1] High schools of various sizes, geographic locations, and student demographics are well represented among survey respondents, with the exception of very small high schools and alternative schools.

Overall Response Rates

Two surveys were sent to each school:

1) The *2001 Principal Survey* had questions on opportunities available to students in high schools in Washington. This survey had a response rate of 65 percent with 212 surveys returned.

2) The *2001 High School Survey* had questions on student demographics and enrollment in college credit and distance learning classes. This survey had a response rate of 62 percent with 203 surveys returned.

At least one survey was returned from 214 schools. The responding schools enroll 65 percent of all high school students in the state (189,947 students in October 1999).

Response Rate by School Size

The breakdown of responses by size of school is illustrated in Table A-1. Schools that responded to the surveys are representative of public high schools of different sizes across the state with the exception that schools enrolling fewer than 250 students are under-represented.[2] Student enrollment in these small schools represents only 3.6 percent of the total enrollment in all schools surveyed. However, the analysis and statistics presented in this report should be interpreted with caution, as they may not represent activities of very small high schools.

---

[1] From an original list of 413 high schools obtained from the Office of the Superintendent of Public Instruction, 85 schools were removed because they were institutional schools, skills centers, alternative schools serving only one or two grade levels, or had fewer than 20 students enrolled in 10th grade. October 1999 headcount enrollment in all high schools was 293,148; surveyed schools enrolled 280,634 students.

[2] When schools are divided into five size ranges, there is a statistically significant difference between the proportion of responding schools and the total survey population. The difference is $p=.00135$, using a chi-square test ($p<0.05$). However, if schools with fewer than 250 students are excluded, the difference between respondents and the total survey population based on school size is $p=.2732$, which is not statistically significant ($p<0.05$).

Table A-1
Response Rate by School Size

School Size: October 1999 Enrollment	Schools Surveyed		Schools Responding		Percent of Schools Responding in Each Size Range
	Number	Percent of Total Surveyed	Number	Percent of Total Responding	
More Than 1,500	64	20%	42	20%	66%
501–1,500	133	40%	94	44%	71%
500 or Less	131	40%	78	36%	59%
Total	**328**	**100%**	**214**	**100%**	

Response Rate of Alternative Schools

Many alternative schools were not surveyed because of small enrollment (fewer than 20 students in 10th grade or students only at a few grade levels). However, 36 alternative schools were included in the survey (11 percent of total surveyed schools). Only 14 schools responded (39 percent), so the analysis in this report cannot be said to represent the activities of alternative high schools.

Response Rate by Geographic Area

The Institute created five categories of geographic area and assigned schools to each category based on the county in which they are located. As Table A-2 shows, schools responded to the survey in proportion to the number of schools surveyed in each geographic area. There is no statistically significant difference between schools responding to the survey and the proportion of schools surveyed in each area.[3] Therefore, analysis of survey results in this report can be considered representative of schools across the state, based on geographic area.

---

[3] Using a chi-squared test, the difference between the distribution of respondents to the total survey population based on geographic area is $p=0.1612$. This is not a statistically significant difference ($p<0.05$).

Table A-2
Response Rate by Geographic Area

Geographic Area (Counties)	Schools Surveyed		Schools Responding		Percent of Schools Responding in Each Area
	Number	Percent of Total Surveyed	Number	Percent of Total Responding	
Central Puget Sound (King, Pierce)	87	27%	48	23%	56%
Northwest (Clallam, Grays Harbor, Island, Jefferson, Kitsap, Mason, San Juan, Skagit, Snohomish, Whatcom)	73	22%	51	24%	68%
East (Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Lincoln, Spokane, Pend Oreille, Stevens, Walla Walla, Whitman)	53	16%	39	18%	74%
Central (Benton, Chelan, Douglas, Grant, Kittitas, Klickitat, Okanogan, Yakima)	60	18%	37	17%	62%
Southwest (Clark, Cowlitz, Lewis, Pacific, Skamania, Thurston, Wahkiakum)	55	17%	39	18%	69%
Total	**328**	**100%**	**214**	**100%**	

Response Rate by Student Demographics

Statewide, 23 percent of students in grades 9–12 are minority students. However, some schools and school districts enroll a larger proportion of minority students than others. As Table A-3 shows, the high schools responding to the Institute's survey are representative of high schools across the state in terms of the proportion of minority students enrolled based on four categories. The differences are not statistically significant.[4]

---

[4] Using a chi-square test, the difference between the distribution of respondents to the total survey population based on percentage of minority enrollment is $p=0.1399$. This is not a statistically significant difference ($p<0.05$).

Table A-3

Response Rate by Minority Student Enrollment

	Schools Surveyed		Schools Responding		Percent of Schools Responding in Each Category
Percent Minority Students in High School	Number	Percent of Total Surveyed	Number	Percent of Total Responding	
10 % or less	98	30%	68	32%	69%
11–25 %	127	39%	88	41%	69%
26–50 %	64	19%	35	16%	55%
More than 50 %	39	12%	23	11%	59%
Total	**328**	**100%**	**214**	**100%**	

APPENDIX B: CASE STUDIES OF EIGHT HIGH SCHOOLS

To supplement information from the high school surveys, the Institute selected eight high schools to participate as case studies. Participants were asked questions pertaining to the following topics:

- Strategies to Improve Student Learning: Curriculum, Instruction, and Assessment
- Impact of EALRs and WASL
- Educational Programs, Pathways, and Learning Opportunities
- Challenges and Opportunities for the Future

Selection of Schools

Schools were selected based on the following criteria (See Table B-1):

- **Size of School:** Two small schools (250 to 900 students), four medium schools (900 to 1,500 students), and two large schools (over 1,500 students);

- **Geography:** A balance of the west, central, and east sides of the state, as well as rural, suburban, and urban locations;

- **Demographics:** Schools with at least 15 percent of the student population eligible for free and reduced lunch and at least 9 percent minority enrollment;

- **Grade Levels:** Schools with a 9th through 12th grade configuration, to maintain consistency in the types of issues discussed; and

- **Other Considerations:** Several schools identified as pursuing standards-based reform efforts.

Table B-1
Case Study High Schools

High School (District)	Number of Students	School Size	Location	Percent Free and Reduced Lunch	Percent Minority
Pasco	2,285	Large	Central	43%	62%
Moses Lake	1,742	Large	East	26%	26%
Sunnyside	1,368	Med/Large	Central	39%	69%
Mark Morris (Longview)	1,147	Medium	Southwest	16%	9%
Nathan Hale (Seattle)	1,089	Medium	West	27%	39%
Sequim	935	Med/Small	West	18%	12%
Nooksack Valley	519	Small	Northwest	29%	17%
Lake Roosevelt (Grand Coulee Dam)	299	Small	East	25%	53%

Description of Schools

Institute staff conducted two-day visits to each high school, reviewed school documents, such as school improvement plans and staff development plans, and observed classes. Over the course of the visits, the Institute was able to interview 18 administrators, 185 teachers and staff, 210 students, and 60 parents and community members. Detailed summaries from each case study can be found in volume 3 this report (*Educational Opportunities in Washington's High Schools Under State Education Reform: Case Studies of Eight Washington High Schools*).

Pasco High School

Pasco is the second largest high school in the state and serves a significant at-risk population. Pasco has focused its work over the last five years on two state learning goals. For Goal 1 (reading, writing, communication, and math), Pasco has created an integrated curriculum for 9th grade covering science, computer literacy, and health in a two-hour block. Planning and curriculum for the block is a collaborative effort among the teachers of the three courses. There are also three performance assessments over the course of the year.

For Goal 4 (linking education to the world of work), Pasco has developed a career pathways model to help students explore and prepare for their options after high school. Ninth grade students are offered two-week modules that orient them to the five pathways, and, in the spring, they choose one of the pathways. There are special projects in 10th grade (service learning), 11th grade (Enterprise Business Week), and 12th grade (senior project) that students are encouraged to focus around their pathway. The graduating class of 2001 will be the first to have completed each activity. Staff and students report that adding a new activity each year has required a large investment of time and energy.

Moses Lake High School

Moses Lake is a large high school in Eastern Washington. A self-study for accreditation completed in 1999 suggested that Moses Lake needed to increase student motivation and attendance, create opportunities for students to connect learning to their everyday lives, and create a comprehensive learning improvement plan. Staff are beginning to talk about strategies for accomplishing these objectives, including senior projects, portfolios, or career pathways.

One opportunity to add a culminating project is through the advisory period, which was implemented in Moses Lake more than five years ago. Each student is assigned to a teacher who advises 15 to 20 students for the duration of their high school education. The advisory meets every other week, and a committee of teachers provides a common lesson plan. Staff are interested in exploring new projects and activities but are concerned about the amount of planning and oversight that would be required.

Sunnyside High School

Sunnyside is located in the second largest community in the Yakima valley and serves a diverse student population with high turnover, many of whom are considered at risk of dropping out of school. In 1999, Sunnyside established a portfolio for each student where teachers place examples of students' best work throughout high school. At about the same time, Sunnyside developed a booklet that categorizes various occupations into five broad career clusters or pathways and illustrates how students might choose high school courses based on the pathways. Counselors explain the booklet to students, but most career and guidance counseling occurs through student-initiated visits to the counseling office.

In November 2000, Sunnyside had its first meeting to discuss requiring a senior project. Staff would like to see integration among the portfolio, career pathways, educational plan, and senior project in order to make them more meaningful for students.

Mark Morris High School

Mark Morris is one of two similarly-sized high schools in the Longview School District. Mark Morris initiated the "Pathway to Tomorrow" project in 1999 and is phasing it in over five years. The project includes four portfolios (Student Work, Citizenship, Career, and Academic) and a Celebration Presentation occurring at the end of the senior year where students explain their portfolios.

Each aspect of the project has been explicitly aligned with the state learning goals and the district's exit outcomes. At least four of the samples students place in their portfolio must be "quality work" that meets an objective standard set by the teacher. Starting in 2001, the high school course catalog will describe the opportunities students have to produce quality work in each class. Staff are optimistic that the difficulties of starting a large schoolwide project will be worked out and realize they need to find ways to convince students the project is worthwhile.

Nathan Hale High School

Nathan Hale is considered a small high school within the Seattle School District. It has been a member of the Coalition of Essential Schools (CES) network since 1997. In 1998, Nathan Hale divided all 9th graders into two academies, each staffed by six teachers with a student-teacher ratio of approximately 20:1. The academies are a two-period, three-hour block in humanities and health/science. Students of all levels of ability, including special education and ESL students, are taught in the same classes and expected to meet the same standards.

In 1999, Nathan Hale extended the academy model by introducing "Integrated Studies" in 10th grade. Academy teachers receive an extra planning period to create integrated units of study across subjects. Juniors and seniors complete projects involving research, writing, and a culminating presentation. Nathan Hale has not yet decided whether or how to extend the academy model into the upper grades. Concerns include finding time for teachers to collaborate and older students' desire for more independence and options.

Sequim High School

Sequim is a medium-sized high school on the Olympic Peninsula. A large number of students attend Running Start at Peninsula Community College in nearby Port Angeles, which is a source of concern to the staff, students, and parents at the high school. Staff describe the school curriculum as traditional, with an academic and college-preparatory focus.

Starting in 2000, Sequim began implementing the PACK: Portfolio of Achievement, Career, and Knowledge. The PACK will include entries to illustrate a student's competencies as Planner, Learner, Employee, and Citizen. Students will present their portfolios each year, culminating for seniors with presentations to the community. A PACK period every two weeks allows students to meet with a teacher who will follow them for four years as their advisor. PACK is still under development, and staff have not yet reached consensus that it is the best utilization of instructional time and energy.

Nooksack Valley High School

Nooksack Valley is a small school serving students from several towns in rural Whatcom County. Nooksack Valley is in the early stages of implementing a series of activities. In 1999, all 9th grade students enrolled in a Focus 9 class where they explored career pathways, learned about job applications and workplace skills, and participated in an informational interview. Students also put together a collection of student work and record of activities in a personal portfolio.

A senior project became a graduation requirement in 2000. The district develops students' capacity to complete the project by having them do research and make a presentation every two years (at increasing levels of sophistication) starting in 6th grade. Nooksack Valley received a Gates grant to propose changes to the traditional structure of high school over the next several years. At this point, staff are most interested in exploring new ways to use time and experimenting with individualized learning in 11th and 12th grades to create more options for students.

Lake Roosevelt High School

Lake Roosevelt is located in the small rural community of Coulee Dam in Eastern Washington. Since the early 1990s, the school has focused its reform efforts on School-to-Work transition. Over time, career pathways and career exploration have been integrated into all classes and the school culture. This has occurred primarily through a student portfolio (PREP) and a culminating senior project. Students are strongly encouraged to do several job shadows, and the school makes a special effort to have students visit workplaces throughout the region.

As a small school, Lake Roosevelt has a limited number of electives tailored to different career pathways, but students are still encouraged to select courses based on their chosen pathway. For the future, Lake Roosevelt will be challenged to find new ways to assist low-achieving students and address community concerns, such as an aging facility, limited local tax base, and low parent involvement in the high school.

APPENDIX C: STATE SUPPORT OF REMEDIATION DUE TO STATE STANDARDS OR GRADUATION TESTS

Of the 27 states that anticipate requiring students to pass a statewide, standards-based test for high school graduation, 15 have passed laws requiring school districts to provide remediation for students who are at risk of failing the tests. Fourteen states support graduation test remediation with funding for specific state programs or through the state's funding allocation formula for schools. States that require remediation do not necessarily provide special funding to support it. Programs usually entail extra learning opportunities in the summer, during the school day, before or after school or on weekends.[1]

Table C-1

State Support for Remediation Due to State Standards or Graduation Tests

Graduation Test Based on State Standards		Law Requiring Remediation	State Funding for Graduation Test Remediation
State	Date		
Washington	2008		
Alabama	Current	X	X
Alaska	2002		X
California	2004	X	
Delaware	2004		X
Florida	2003	X	X
Georgia	Current		X
Louisiana	2001	X	X
Maryland	2007	X	
Massachusetts	2003	X	X
Minnesota	2004	X	
Nevada	Current	X	X
New Jersey	2003	X	
New York	Current	X	X
North Carolina	2004	X	
Ohio	2005	X	X
South Carolina	2005	X	X
Tennessee	2005		X
Texas	2005	X	X
Utah	2005	Proposed	Proposed
Virginia	2004	X	X

---

[1] This analysis only examines programs specifically targeted at increasing student performance on high school graduation tests or tests based on state standards. Some other states without graduation tests also provide funding for remediation to meet state standards. Examples include Connecticut's Summer School ($3.7 million) and Kentucky's Priority Schools Extended School Services ($36.9 million).

BEST COPY AVAILABLE

APPENDIX D: STATE ADJUSTMENTS TO STANDARDS-BASED GRADUATION TESTS

More than half the states (27) have introduced or are planning to require students to pass tests based on state standards in order to graduate from high school. However, this depiction is far from static as states continually adjust and change implementation dates and other policies pertaining to graduation tests.[1]

Delays in Implementation

At least six states have delayed implementing standards-based tests, reflecting concerns that teachers have not received enough training or time to implement new curriculum and assessments and schools have not provided enough remediation (see Table D-1).[2]

Table D-1

Delays in Implementation of Standards-Based Tests Required for Graduation[3]

State	Change in Date
Alaska	2002 → 2004
Arizona	2002 → 2004*
Maryland	2003 → 2007
Minnesota	2002 → 2004
North Carolina	2003 → 2004
Wyoming	2003 → 2005

** Delay in math portion of test*

Modifications

At least six states have altered the test content or adjusted minimum passing scores based on early analysis of student scores and/or concerns about the rigor of the requirements (see Table D-2).

---

[1] Sources: Education Commission of the States, *ECS State Notes: Assessment and Secondary Education*, August 2000; "Getting Serious About High School," *Education Week*, April 11, 2001; "Quality Counts 2001: A Better Balance, Standards, Tests and the Tools to Succeed," *Education Week*, January 11, 2001; "States Adjust High-Stakes Testing Plans," *Education Week*, January 24, 2001; Jacques Steinberg, "Academic Standards Eased As a Fear of Failure Spreads," *New York Times*, December 3, 1999; National Conference of State Legislatures, *Standards and Accountability*; Theresa Clarke, National Governors Association, *Graduation Exit Exams Matrix*, October 15, 2000; Dane Linn, National Governors Association, *High School Exit Exams: Setting High Expectations*, September 1, 1998.

[2] Jacques Steinberg, *Academic Standards Eased As a Fear of Failure Spreads.*

[3] Some states may have delayed implementation more than once or already implemented a test after earlier delays. These actions are not reflected.

Table D-2
Modifications to Standards-Based Tests Required for Graduation

State	Modification
California	Shortened exam Deleted advanced math questions
Georgia	Replacing end-of-high school test with end-of-course tests in core subjects, grades 9–12
Massachusetts	Reduced minimum passing scores
Minnesota	Reduced number of content standards tested
New York	Reduced minimum passing scores
Ohio	Replacing end-of-high school test with end-of-course tests in core subjects

Alternatives to Standards-Based Tests

Seven states offer or are considering an alternative diploma or alternative options for students (other than special education students) that do not require passing the standards-based test (See Table D-3).

Table D-3
Alternatives for Students Other Than Passing the Standards-Based Test

State	Alternative to Test
California	SBE must create an alternative way for students to earn a diploma
Delaware	Created three levels of diploma: • Standard: Met course requirements; did not pass test • Academic: Passed test • Distinguished: Passed test with high scores
Georgia	Allows students to request a waiver
Indiana	Allows students to request a waiver based on grades
Louisiana	Allows students who fail 8th grade test three times to enter alternative program and receive Skills Certificate
Virginia	Allows students to substitute other rigorous tests (such as AP or IB) for graduation test
Wyoming	Factors in students' grades in core courses along with test scores

BEST COPY AVAILABLE

Differentiated Diplomas

Five states offer differentiated diplomas for students. All students are still required to pass a standards-based test for high school graduation, but students with exemplary grades, test scores, or other activities can earn a special diploma. Massachusetts offers a Certificate of Mastery, and Arizona, New York, Ohio, and Virginia offer honors diplomas or endorsements (see Table D-4).

Table D-4

Differentiated Diplomas

State	Criteria for Differentiated Diploma
Arizona	Students may earn an honors endorsement by demonstrating an "extraordinary level of knowledge, skill and competency" in math, English, science, and social studies.
Massachusetts	Students may earn a Certificate of Mastery by meeting criteria that vary depending on a student's performance on skills assessments. Criteria may include high-level performance on advanced placement tests or various academic awards.
New York	Students may earn an Honors Regents Diploma by achieving an average of 90 percent on all Regents examinations required for the diploma.
Ohio	To receive an Honors Diploma, students must meet requirements for the regular diploma, take additional course requirements, and receive a GPA of 3.5 and high scores on state tests. There is an Honors Diploma for the college preparatory curriculum and for the career-technical education curriculum.
Virginia*	Students may earn an Advanced Studies Diploma by taking additional courses and receiving a score of 9 rather than 6 on end-of-course tests.

**Students may also request alternatives to the state test.*

BEST COPY AVAILABLE

APPENDIX E: OREGON STATE'S CERTIFICATES OF MASTERY

Overview

In 1991, the Oregon State Legislature enacted a state education reform initiative through the Education Act for the 21st Century, two years earlier than Washington's Education Reform Act of 1993. The goals of Oregon's reform were to increase academic rigor and promote relevance of learning for students. For high school students who meet state standards, Oregon created a Certificate of Initial Mastery and is developing a Certificate of Advanced Mastery. In addition, Oregon is implementing a proficiency-based system for college admissions.

- The Certificate of Initial Mastery (CIM) is awarded to students who achieve 10th grade state performance standards in seven core subjects. Full implementation is planned for 2004.
- The Certificate of Advanced Mastery (CAM) is awarded to students who demonstrate how their knowledge and skills can be applied in a relevant context. The purpose of the CAM is to prepare students for successful transitions to post-secondary schooling, employment, and adult responsibilities. Full implementation is scheduled for 2005.
- The Proficiency-Based Assessment Standards System (PASS) is a set of standards students must meet for admission into four-year post-secondary institutions. A counterpart called the Proficiencies for Entry in Programs (PREP) guides placement into two-year colleges.

Oregon Certificate of Initial Mastery

To qualify for the CIM, students will be expected to pass statewide assessments and complete work samples that demonstrate they meet state standards in seven core subjects: English (reading, writing, speaking, and literature), math, science, and the social sciences (civics, economics, geography, history); student competency in the arts, a second language, and physical education will be locally assessed. However, attainment of the CIM is not required for graduation. Students who do not qualify for a CIM may still receive a diploma that acknowledges attendance and credit completion. In the fall of 2001, the Oregon State Board of Education will consider making the CIM a graduation requirement.

Work samples are papers or other products that are assessed locally by teachers using state scoring guides. For example, work samples in English include three papers: expository, narrative or imaginative, and persuasive. For speaking, students prepare an informative speech, a persuasive speech, and are required to give an unrehearsed presentation. For math, students must submit two work samples representing statistics and probability, algebraic relationships, or geometry.

In 1998–1999, 10th grade assessments were offered in reading, literature, writing, and math. The following year (1999–2000), 10th grade students also had to submit work samples in writing, speaking, and math and pass a multiple choice test in science. Performance-based assessments and work samples are scheduled to be added for science and the social sciences. Information on the number of Oregon students who qualified for a CIM in 1999 or 2000 was not available.[1] Full implementation of the CIM is scheduled for 2004.

In comparison, Washington's WASL currently covers four subjects (reading, writing, communication, and math). Starting with the class of 2008, students will have to pass the WASL in these four subjects to receive a Certificate of Mastery (COM). It is currently anticipated that the science WASL will be added to the COM by 2010, and successful completion of state assessments in other subjects (social studies, arts, health/fitness) will lead to an endorsement on a student's transcript. The COM will be a requirement for high school graduation in 2008. There is no equivalent in Washington to Oregon's work samples (see Table B-1).

Table B-1

Certificates of Mastery: Washington and Oregon

Washington: Certificate of Mastery*	Oregon: Certificate of Initial Mastery (CIM)**
• Full implementation scheduled for 2008	• Full implementation scheduled for 2004
• Required for graduation by 2008	• Not required for graduation (being considered by State Board of Education)
• Students demonstrate 10th grade state standards by: ➢ Passing state assessments in English (reading, writing, listening) and math. ➢ Passing state assessments in science (2010)	• Students demonstrate 10th grade state standards by: ➢ Passing state assessments in English (reading, writing, speaking, and literature), math, science, and the social sciences (civics, economics, geography, history) ➢ Submitting work samples that are locally assessed using state scoring guides ➢ Achieving state content standards and district performance standards in arts, a second language, and PE (locally assessed).
• Demonstration of state standards in social studies (civics, geography, history), arts, and health/fitness will lead to endorsement on high school transcript.	

* RCW 28A.655.060 and WAC 180-51-063.

** Oregon Department of Education, <http://www.ode.state.or.us/asmt/faqs/faqdevel.htm>, June 8, 2001.

---

[1] The results of the 1999 CIM were not released because they were considered unreliable. Results for 2000 are still being tabulated. Personal communication with Linda Burgin, Policy and Research Analyst, Oregon Department of Education, July 30, 2001.

Oregon Certificate of Advanced Mastery

The Certificate of Advanced Mastery (CAM) aims to prepare students for successful transitions to post-secondary schooling, employment, and adult responsibilities, and engage students in planning for their future. To qualify for the CAM, high school students will have to complete five main requirements, including demonstrating that they can apply the subject-area knowledge from the CIM in a relevant context. CAM is scheduled to be implemented by 2005 (see Table B-2).

Table B-2
Oregon Certificate of Advanced Mastery

Requirements for CAM by 2005*
• Students meet Certificate of Initial Mastery academic requirements. • Students develop an education plan and build an education profile. • Students demonstrate extended application of the CIM or higher academic standards through a collection of evidence. • Students demonstrate career-related knowledge and skills in personal management, problem solving, communication, teamwork, organization and systems, employment foundations, and career development. • Students participate in career-related learning experiences as outlined in their education plan connecting classroom learning with real life experiences in the workplace, community, or school.

**Oregon Department of Education, Certificate of Advanced Mastery Design, Draft 3, March 1, 2001.*

The specific products, collections of evidence, and other expectations for students to receive a CAM are currently under development by a task force of the Oregon Department of Education. Six high schools piloted the CAM in 1999–2000 and 2000–2001, but the results have not yet been compiled. A key issue for the task force is how detailed or prescriptive state guidelines will be for the CAM. At present, the guidelines are general, and high schools have considerable flexibility in the activities, standards, and assessments used to meet CAM requirements.

While Washington does not have a second certificate like the CAM, high schools are required to offer educational pathways for students who have achieved a Certificate of Mastery. The goals of Oregon's CAM and Washington's educational pathways appear similar: encourage students to pursue career and educational objectives and integrate academic and vocational education. A list of possible pathways (e.g., Running Start, honors classes, Tech Prep, etc.) is provided in Washington State statute, but decisions about what constitutes a pathway, how they work, and how students pursue them are left to individual high schools.

In addition, under new statewide graduation requirements from the Washington State Board of Education, students will have to complete an education plan and a culminating project that demonstrates subject-area competencies, critical thinking (state learning Goal 3), and an understanding of the world of work (state learning Goal 4).

Proficiency-Based College Admission: Oregon's PASS/PREP

The Proficiency-Based Assessment Standards System (PASS) is a set of standards for admission to four-year institutions of higher education that were developed by the Oregon University System. The Proficiencies for Entry into Programs (PREP) for two-year colleges is similar to PASS except the standards are utilized as a guidance tool for placing students and assisting with planning.[2] PASS and PREP are intended to describe the skills and knowledge students need to succeed in college rather than relying on numbers of credits and courses in certain subject areas and minimum grade point averages (GPAs). State designers believe the system will provide better measures of student learning and increase the likelihood that students admitted to college complete degrees and graduate on time.[3]

Students could apply to Oregon's public colleges and universities using the PASS system for English and math for the first time in 2001.[4] Proficiency in other subject areas will be phased in over the next four years, and eventually students who choose the PASS system will not be required to submit GPAs for college admission. During the phase-in period between 2001 and 2004, students will have the option to use the PASS to gain entry into a four-year college.[5] When PASS is fully implemented in 2005, students will be required to use it to gain entry to four-year colleges.

PASS and PREP were developed in 1994–1995 before development of CIM requirements was complete. This resulted in some lack of alignment in state standards between K–12 and higher education systems; for this reason, the Oregon University System and the Oregon Department of Education are adjusting the requirements of PASS and PREP according to changes in implementation dates and content of the CIM.[6] Some educators are concerned that aligning the CIM and CAM with PASS and PREP causes K–12 standards and expectations to become too focused on post-secondary education while ignoring other training and career options for students.

---

[2] PREP standards were developed to help colleges better inform students of the knowledge and skills they are expected to have upon entry into individual college programs if they are to complete the program on time. Oregon Community College PREP web site: <http://www.odccwd.state.or.us/comcol/prep/PREP.html>.

[3] Karen Paulson, *Proficiency-Based Admission Standards System (Oregon) Case Study*, Competency-based Initiatives Work Group National Postsecondary Education Cooperative, (National Center for Higher Education Management Systems, Revised, October 1999), 2.

[4] Students who chose to use the PASS system in 2001 were required to demonstrate proficiency in English and math as measured by the CIM. They were still required to meet minimum course credits in science, social science, and second languages, achieve a certain GPA in those areas, and take the SAT 1 or ACT college entrance exam.

[5] PASS will be available in science in 2002, the arts in 2003, second languages in 2004, and social science in 2005. Lyn Olsen, "K-12 and College Expectations Often Fail to Mesh," *Education Week*, May 9, 2001; Karen Paulson, *Proficiency-Based Admission Standards System (Oregon) Case Study*.

[6] PASS was established by Oregon's Board of Higher Education in 1993. It was developed by the Oregon University System (OUS) in 1994 and adopted by Oregon's State Board of Education.

In Washington, the Higher Education Coordinating Board (HECB) has adopted proficiency standards (or competencies) in English, math, world languages, and science for college admission. By adopting these competencies, the HECB has also made it a requirement that Washington students attain a Certificate of Mastery in order to be admitted as a freshman to a four-year public institution. This will take effect for the high school graduating class of 2008. A pilot project with four high schools has been working to identify what types of student work (assignments, papers, tests) would demonstrate successful mastery of each subject area, but there is no current plan to implement competency-based college admissions on a statewide basis.

Challenges in Oregon

In 2000, the Oregon Department of Education conducted a survey and focus groups to elicit perspectives on the CIM and CAM from educators and students.[7] Most responses dealt with concerns about the interaction between the CIM, the CAM, and the high school diploma (see Table B-3).

Table B-3

Summary of Educator and Student Perspectives on Oregon's CIM and CAM

Educator and Student Perspectives
• The value of the CIM and the CAM is not evident to students, although the high school diploma is seen as valuable.
• The diploma and the CAM might create a dual system.
• The implementation of the CAM will be staff and resource intensive.
• CIM and CAM requirements could benefit from greater clarity and individualization to meet specific students' needs.
• Students who do not qualify for the CIM do not have a chance to qualify for the CAM either.

Oregon Department of Education, *Voices from the Field,* May 2001.

Another study found Oregon's high school teachers have a less favorable attitude to statewide standards and assessments than elementary and middle school teachers, with a marked difference for 11th and 12th grade teachers.[8]

---

[7] Oregon Department of Education, *Voices from the Field, Final Report: Educator and Student Feedback, Certificate of Advanced Mastery, (CAM), Draft 3,* May 14, 2001.

[8] Dr. Michael Dalton, *Issues and Problems in the Implementation of the Oregon Certificate of Initial Mastery (CIM) Assessment System,* (Southern Oregon University, April 2000), 7.

As a result of these concerns, Oregon has made some adjustments to the CIM and CAM:

- **CIM Implementation.** The date for implementation of the CIM was moved forward one year (from 2003 to 2004) to give high schools time to integrate changes.
- **Flexible Qualification for the CIM.** In 2001, Oregon's State Board of Education ruled that students could meet the requirements for the CIM at any time during four years at high school, removing the expectation that students achieve the CIM in 10th grade. This policy change addressed educator and community member concerns that large numbers of students would have to take remediation classes in 11th and 12th grades to meet the standards.
- **Incentives to Meet Standards.** Similar to Washington's WASL and Certificate of Mastery, students reported they did not see the value of qualifying for the CIM and CAM since they can still graduate from high school without them.[9] Oregon's State Board of Education directed the Department of Education to examine the connection of the CIM to graduation and plans to consider the findings in fall 2001.
- **Online Testing System.** In 2000–2001, the Oregon Department of Education partnered with 28 schools, including 15 high schools, to pilot the Technology Enhanced Student Assessment (TESA).[10] The intent of the TESA is to allow students the flexibility to take tests when they are ready, provide fast individual results to increase motivation, and allow teachers to understand students' individual needs.

CIM, CAM, and PASS/PREP represent a significant shift in Oregon's approach to education. It is likely the state will continue to make adjustments to address concerns as they emerge. Staff from the Oregon Department of Education cited communication with schools, teachers, parents, and students as the major challenge in implementing high school education reforms and also as the major tool to promote understanding and acceptance of state education reform in high schools.[11]

---

[9] Oregon Department of Education report, *Voices from the Field*, May 2001.

[10] Oregon Department of Education, *Oregon Standards*, Spring 2001, 3.

[11] Meeting with the CAM design team, Oregon Department of Education, July 24, 2001.

APPENDIX F: CAREER ACADEMIES

What Are Career Academies?

Nationally, many high schools are experimenting with organizing courses, instruction, and activities around a career theme or career pathway, such as Health and Human Services, Business, or Science and Engineering. Career academies are the most intensive examples of career pathways because they are either separate schools or schools-within-schools based on one career theme, such as finance, health, media, natural resources, public service, technology, and travel and tourism. Programs can last between one and four years. Although the design of the academies varies widely, in 1999 several national organizations agreed that career academies have three key features:[1]

- Small learning communities that create supportive environments;
- Integration of academic and career-related curricula organized around a specific career theme; and
- Partnerships with employers to provide students with work-based learning opportunities.[2]

Career academies were originally established over 30 years ago to prevent high-risk students from dropping out and to prepare them for work. Recently, their focus has shifted to prepare all types of students for both college and careers by integrating vocational and academic studies. There are an estimated 1,500 academies in the United States that organize learning around a career theme.[3]

National Career Academy Networks

National organizations have formed to create career academy partnerships and support networks. Networks are typically organized by location or around certain career themes or target populations. Three of the major organizations are the California Partnership Academies, the Philadelphia Academies, and the National Academy of Finance (NAF).

The California Partnership Academies aim to improve the prospects of unmotivated students who are educationally and economically disadvantaged. The Philadelphia Academies emphasize dropout prevention. The NAF supports academies that enroll all types of students based on their interest in certain career fields. NAF academies are organized under one of four career strands: finance, travel and tourism, public service, and manufacturing services.

---

[1] In 1999, national organizations working with career academies agreed on this common definition. Career Academy Support Network (CASN), *Seattle's High School Career Academies*, June 2001 Progress Report.

[2] James J. Kemple, and Jason C. Snipes, *Career Academies: Impacts on Students' Engagement and Performance in High School*, (Manpower Demonstration Research Corporation, February 2000).

[3] The number of career academies in the United States is difficult to estimate because there is no single definition, and programs operating within high schools vary widely. Career Academy Support Network at UC Berkeley, California, <http://casn.berkeley.edu/Definition.html>.

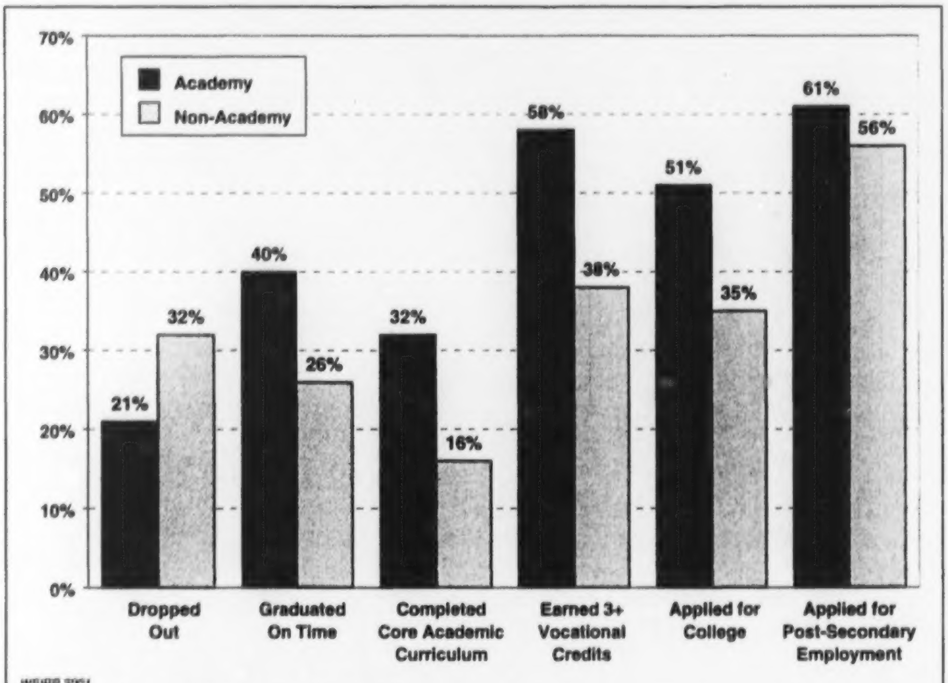
What Does Research Say About Career Academies?

In addition to being a distinct approach to career-themed education, career academies are also one of the most studied models. The Manpower Demonstration Research Corporation (MDRC) has evaluated ten academies annually since 1996. The MDRC study is considered a model program evaluation because students were randomly assigned to either an academy or a regular high school, allowing for control groups of similar students. This provides highly reliable comparisons of student outcomes.[4]

High-Risk Students. The 2000 MDRC evaluation found high-risk students attending career academies were less likely to drop out and more likely to graduate on-time compared with their non-academy counterparts. There were a variety of other outcomes where high-risk academy students outperformed non-academy students (see Figure F-1).

Figure F-1

Outcomes for High Risk Students: Academy Compared With Non-Academy Students



WSIPP 2001
Source: MDRC Evaluative Study Handout, AERA Conference, 2000

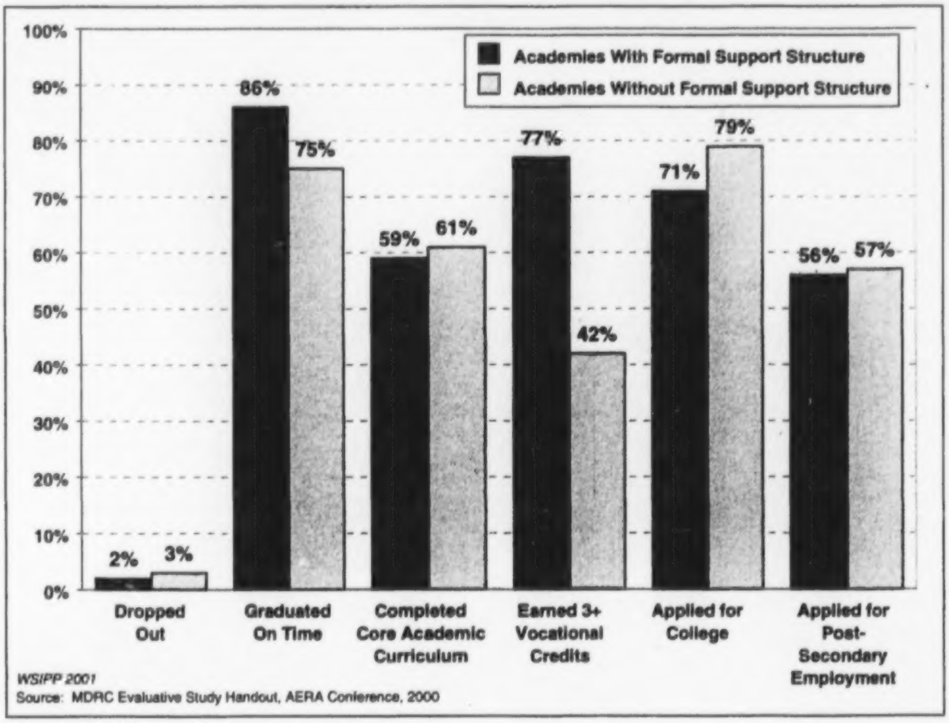
---

[4] The MDRC evaluation compared students who applied for and were selected to the academies with others who applied but were not selected. Applicants were assigned to the two groups at random, and there were no academic pre-requisites to qualify for entry.

Furthermore, the reduced dropout rate has been shown to improve earnings once students leave high school. For example, additional earnings associated with completing one more year of high school are estimated to be four to ten times greater than the additional earnings associated with one grade-equivalent year of test score gain.[5]

Program Organization. MDRC's overall analysis of all types of students (high-, medium-, and low-risk) found that performance outcomes for academy students were either similar or minimally higher than outcomes of non-academy students. However, student outcomes were better in academies that provided a higher level of individual support and a more formalized school-within-a-school structure. In more formally organized academies, an increased percentage of medium-risk students earned enough credits to graduate and demonstrated an increased level of career-related, course-taking, and work-based learning activities. This was achieved without reducing academic course-taking (see Figure F-2).

Figure F-2
Academies With Formal Support Structures
Compared With Academies Without Formal Support Structures[6]
(Outcomes for Medium-Risk Students)



WSIPP 2001
Source: MDRC Evaluative Study Handout, AERA Conference, 2000

---

[5] David Stern, Charles Dayton, and Marilyn Raby, *Career Academies: Building Blocks for Reconstructing American High Schools,* (Berkeley: University of California, October 2000), 18; <http://casn.berkeley.edu/buildingblocks.html>.

[6] Academies with *formal support structures* are defined in the MDRC study as *high-contrast* academies: they have high levels of interpersonal supports and a formalized school within a school structure. Academies *without formalized support structures* are defined as *low contrast* academies: they have lower levels of interpersonal support and a less formal school within a school structure.

Test Scores. Although the MDRC study showed that some students achieved more positive outcomes at career academies, scores on standardized math and reading tests did not improve for all students. In addition, the MDRC study and other studies have not been able to ascertain whether the level of instruction in career academies is more rigorous than in non-academy classes or whether students actually learn more.

Career Academies in Washington

While no statewide data on career academies in Washington are available, there are indications of increased interest in using this model of career-themed pathways in public high schools. One of six options for high schools to receive a portion of the federal School to Work grant in 2001 included the development of smaller learning communities through schools-within-schools or career academies.[7] In 2001, two Washington high schools received Gates grants to establish career academies: Clover Park High School (Clover Park School District) and Cleveland High School (Seattle School District).

The Seattle School District has a Partnership Academy program and collects information on career academies in the district. In 2001, the district had 11 career academies in five high schools: architecture, construction and engineering (1), biotechnology (1), finance (3), information technology (2), maritime/ transportation (1), public service (1), and travel and tourism (3). Seattle is planning to implement an additional 40 academies in career fields such as education, graphics, horticulture, manufacturing/engineering, radio/TV broadcasting, and technical theater. Features of Seattle's Partnership Academies are illustrated in Figure F-3.

Figure F-3
Features of Seattle Partnership Academies

Smaller Learning Communities	Partnerships With Employers, Community, and Higher Education	College Prep and Career-Related Curriculum
• Academy-only classes for 2 to 4 years • Teams of academic and career/technical teachers • Limited, voluntary enrollment • Administrator and counselor support • Close relationships among teachers and students	• Steering committee to guide and support • Parent involvement and support • Business and community speakers, role models, mentors • Field trips, job shadowing, internships, community service	• College entrance academic classes • Applied, integrated curriculum • Common teacher planning time • Relevant career/technical classes

Source: Jill te Velde, School-to-Work Coordinator, Office of the Superintendent of Public Instruction

Vancouver and Spokane school districts are reportedly planning to establish career academy programs based on Seattle's model.[8]

---

[7] E-mail communication with Jill te Velde, OSPI, July 11, 2001.

[8] Ibid.

APPENDIX G: GATES FOUNDATION GRANTS FOR REDESIGNING HIGH SCHOOLS

Overview

During 2000 and 2001, the Bill and Melinda Gates Foundation began three grant programs directing approximately $80.2 million in Washington State toward high school redesign efforts:

- **State District Grants.** Ten Washington school districts received more than $70 million.[1]
- **Washington State Achievers Program.** Sixteen high schools received $8.9 million for redesign as part of the $100 million redesign and scholarship grant.[2]
- **State School Grants.** Mountlake Terrace High School received $833,000 to create smaller learning communities within the school.[3]

State District Grants

Beginning in 2000, ten Washington school districts received a total of $70.9 million to accelerate reforms and create high achievement model districts. The grant amounts were based on districts' student population and whether they were high-need districts (see Table G -1).

Table G-1
Gates Foundation Grants to Washington School Districts

School District	Grant Amount (in millions)
Seattle	$25.9
Spokane	$16.5
Evergreen	$9.3
Kennewick	$7.3
Bellingham	$4.5
Port Angeles	$2.7
Enumclaw	$2.3
Nooksack Valley	$1.0
Hockinson	$.9
Mabton	$.5

---

[1] Tom Vander Ark, Executive Director of Education Division of the Bill and Melinda Gates Foundation. The Bill and Melinda Gates Foundation, "Port Angeles School District Recognized as High-Achievement Model by the Bill and Melinda Gates Foundation," <http://www.gatesfoundation.org/pressroom/default.asp>, August 28, 2000.

[2] Linda Shaw, "$100 million to high school: Cleveland among recipients of Gates scholarship," *Seattle Post-Intelligencer*, March 13, 2001.

[3] Bill and Melinda Gates Foundation: <http://www.gatesfoundation.org/learning/ed>.

The Gates Foundation suggests giving priority to high schools that are considering restructuring into multiplex schools where one school might be divided into two or more smaller schools, each with its own principal and classrooms but sharing other facilities. According to the foundation, high achievement schools promote strong teacher-student relationships, and they are small, intimate units of no more than 600 students and preferably fewer than 400.[4]

Washington State Achievers Grants

In 2001, the Gates Foundation granted $109 million as part of the Washington State Achievers Program. This grant is aimed at helping students through combining college scholarships with funds for high school redesign. One hundred million dollars is dedicated to college scholarships, and $9 million is dedicated to school redesign. Each school was awarded $500 per student for school redesign and $100 per student for the development of college awareness programs. The 16 high schools receiving grants were required to have a high proportion of low-income students (see Table G-2).

Table G-2

Schools Receiving Washington State Achievers Grants

District	School	Enrollment 2001
Clover Park	Clover Park	1,485
Federal Way	Harry S. Truman	191
Kittitas	Kittitas	266
Mabton	Mabton	329
Mukilteo	Mariner	1,725
Seattle	Cleveland	737
Stevenson-Carson	Stevenson	394
Tacoma	Henry Foss	1,905
Tacoma	Lincoln	1,676
Tacoma	Mount Tahoma	1,332
Tonasket	Tonasket	411
Tukwila	Foster	740
West Valley	West Valley	801
Yakima	Davis	1,619
Yelm	Yelm	1,289

Washington State Achievers grants were awarded where large high schools demonstrated a willingness to restructure into small, autonomous learning environments of no more than 100 students. If schools were already small, the foundation supported reforms such as improving teacher-student relationships.[5]

---

[4] Ibid, 3.

[5] Bill and Melinda Gates Foundation, <http://www.gatesfoundation.org/learning/ed/schools/wsap/factsheet.htm>.

State School Grants

Mountlake Terrace High School in the Edmonds School District was the only Washington high school out of 24 nationwide selected for a State School Grant. The grant of $833,000 was awarded for the purpose of redesigning the 1,800 student school into smaller learning communities. The school is considering developing academies, each with approximately 300 students. Each academy may have a different focus, such as performing arts, math, science and technology, fine arts, and humanities.

APPENDIX H: COLLEGE-LEVEL LEARNING ENROLLMENT—TECHNICAL APPENDIX

Information on student enrollment in college-level learning programs (Running Start, Advanced Placement, International Baccalaureate, College in the High School, and Tech Prep) was drawn from multiple sources. Certain assumptions were made to make the data as comparable as possible. The purpose of this appendix is to explain the sources and assumptions (see Table H-1).

High Schools Offering College-Level Learning, 2000–2001

Table H-1
High Schools Offering College-Level Learning, 2000–2001

	Running Start	Advanced Placement	International Baccalaureate	College in the High School	Tech Prep
High Schools Offering College-Level Learning, 2000–2001	**97%**	**62%**	**4%**	**28%**	**82%**

- **Running Start:** Although students from any public high school may participate in Running Start, data provided by the State Board for Community and Technical Colleges (SBCTC) showed enrollments from 363 high schools for fall 2000. This represents approximately 97 percent of all non-institutional high schools in the state. Information about Running Start enrollment at Central Washington University (CWU), Eastern Washington University (EWU), and Washington State University (WSU) was not available by high school.

- **Advanced Placement:** In the Institute's High School Survey, 126 of 203 (62 percent) responding schools reported offering Advanced Placement courses. This is consistent with reports from The College Board showing that, in 1999, students from 61 percent of Washington's high schools took Advanced Placement exams.

- **International Baccalaureate:** The International Baccalaureate Organization reports that 12 high schools in Washington offer an IB program (<http://www.ibo.org>).

- **College in the High School:** In the Institute's High School Survey, 57 of 203 (28 percent) responding schools offered College in the High School courses.

- **Tech Prep:** In the Institute's Principal Survey, 82 of 212 high schools reported Tech Prep was readily available or available with minor difficulty.

BEST COPY AVAILABLE

Table H-2

11th and 12th Graders Enrolled, 2000–2001

	Running Start	Advanced Placement	International Baccalaureate	College in the High School	Tech Prep
11th and 12th Graders Enrolled, 2000–2001	**10%**	**~13%**	**Not available**	**< 2%**	**~15%**

11th and 12th Graders Enrolled in College-Level Learning 2000–01

- **Running Start:** The SBCTC Running Start Headcount Enrollment for 1999–2000 was 13,442 students. Information from the HECB showed the following enrollments at four-year universities for fall 2000: CWU=62; EWU=135; WSU=38. The total enrollment in grades 11 and 12 was 139,344 students (OSPI P105 Fall 2000 Headcount).

- **Advanced Placement:** In the Institute's High School Survey, 112 schools reported 12,336 students enrolled in Advanced Placement classes as of February 2001. However, it is not known if students enrolled in more than one course are counted twice, so this figure might overstate the proportion of 11th and 12th grade students enrolled in Advanced Placement. Not all students in an Advanced Placement class take the College Board exam, so there is no way to verify the figures with national data.

- **International Baccalaureate:** In some International Baccalaureate programs, nearly all juniors and seniors participate. In others, International Baccalaureate is an option for some students. Too few high schools offering an International Baccalaureate program responded to the Institute's High School Survey to allow an estimate on student enrollment. (See Appendix I for more information.)

- **College in the High School:** In the Institute's High School Survey, 41 schools reported 1,300 students enrolled in College in the High School classes for Spring 2001. This, along with other available information from the SBCTC (989 College in the High School students in community colleges in 1999–2000) and the University of Washington (800 College in the High School students in UW programs in 1997) suggests that College in the High School enrollment is between 1.5 and 2.0 percent of 11th and 12th grade students.

- **Tech Prep:** Information for 2000–2001 was not available. However, in 1999–2000, 15 percent of 11th and 12th grade students took a Tech-Prep course that would have qualified for college credit if the student successfully passed the course. Data was not available for this report on the number of students who requested the college credit.

APPENDIX I: STUDENT DEMOGRAPHICS IN COLLEGE-LEVEL LEARNING

Background

There is growing interest across the country in expanding opportunities for students to earn both high school and college credit while in high school. However, there is also concern about ensuring all students, including minority and low-income students, can take advantage of these learning opportunities. In 1999, the American Civil Liberties Union (ACLU) filed a lawsuit in California alleging that African-American and Hispanic students in high schools offering few Advanced Placement courses could not fairly compete for admission to college with students from high schools offering many Advanced Placement courses. Although no national data are available, information from other states suggests minority students (other than Asian students) are less likely to enroll in Advanced Placement.[1]

Data Sources

Of the 328 Washington high schools surveyed by the Institute, 203 (62 percent) responded to the Institute's High School survey regarding student enrollment in Advanced Placement, College in the High School, and International Baccalaureate programs. Schools were asked to report the number of students, by ethnicity, enrolled in each of these three programs as of February 2001 (winter trimester/spring semester). As explained in Appendix A, the responding schools are representative of high schools across the state in terms of size, geographic location, and student demographics. For purposes of this analysis, high schools responding to the Institute's High School survey are called "survey schools."

Information on student enrollment in Running Start for the fall of 2000, by high school, was obtained from the State Board for Community and Technical Colleges (SBCTC) and combined with enrollment data from the Office of the Superintendent of Public Instruction (OSPI).

Advanced Placement

Enrollment in All Survey Schools. According to the survey responses, 13 percent of 11th and 12th grade students were enrolled in Advanced Placement in the spring of 2001. However, if high schools double-counted students, this percentage may be over-stated.[2] A majority of high schools (126 or 62 percent) reported offering Advanced Placement courses.[3]

---

[1] Pamela Burdman, "The New Advanced Placement Push" *National CrossTalk* 8, no. 3 (Summer 2000).

[2] Although schools were asked to report headcount enrollment, analysis of the information revealed there may be duplication for students who enroll in more than one course (i.e., students could be counted twice). Therefore, the analysis should be interpreted with caution as it may over-state the proportion of total students who are in college-level learning courses. The relative proportion of students across ethnic groups who are in college-level learning may be less affected by duplication.

Enrollment in Schools With Advanced Placement Students. One way to examine student enrollment is to compare the demographics of students in Advanced Placement to the demographics of the overall student population. In other words, is the proportion of Advanced Placement students who are Asian American the same or different from the proportion of all 11th and 12th graders who are Asian American? Table I-1 examines the 112 schools reporting students enrolled in Advanced Placement. Caucasian and Asian American students are more likely to enroll in Advanced Placement than Hispanic, African American, or Native American students.[4]

Table I-1

Student Demographics: Advanced Placement Compared With All 11th and 12th Grades in Schools With Advanced Placement

	All 11th and 12th Grades	Advanced Placement
Caucasian	80%	84%
Asian American	8%	11%
Hispanic	7%	3%
African American	3%	1%
Native American	2%	<1%
Minority	20%	16%
Non-Asian Minority	12%	5%

WSIPP High School Survey 2001, 112 schools reporting AP enrollment

Enrollment in Schools With Large Proportions of Minority Students. As the proportion of minority students in high school increases, the proportion of those students who participate in Advanced Placement decreases.[5] For example, schools with fewer than 10 percent minority students in 11th and 12th grades enrolled 15 percent of those students in AP courses, on average. Schools with more than 50 percent minority students enrolled only 4 percent of those students in AP, on average (see Table I-2).

---

[3] In 1999, The College Board recorded that students from 61 percent of Washington's high schools took an Advanced Placement exam. Student enrollment data for the Institute survey was provided by 112 schools (55 percent).

[4] The differences among student groups enrolled in Advanced Placement were found to be statistically significant using a chi-square test at the p<.05 confidence level. There are significant differences between the demographics of Advanced Placement and the demographics of all students in 11th and 12th grades. There are also significant differences between each group of students (i.e., Caucasians are significantly more likely than average to enroll in Advanced Placement, and Hispanic students are significantly less likely than average to enroll).

[5] The differences among groups of schools were found to be statistically significant using a chi-square test at the p<.05 confidence level.

Table I-2

Minority Enrollment in Advanced Placement Versus Overall Minority Enrollment in High Schools

Percent Minority in 11th & 12th Grade	Average Percent Minorities in Advanced Placement
<10 percent	15%
11–25 percent	10%
26–50 percent	6%
>50 percent	4%

WSIPP High School Survey 2001, 203 schools

College in the High School

Enrollment in All Survey Schools. According to the survey schools, approximately 1.4 percent of 11th and 12th grade students are enrolled in College in the High School courses. Fewer than one-third of high schools (57 or 28 percent) reported offering College in the High School.[6]

Enrollment in Schools With College in the High School Students. Table I-3 compares the demographics of College in the High School students with the overall population of 11th and 12th graders in schools that reported College in the High School enrollment. The patterns of minority student enrollment in College in the High School are similar to those of Advanced Placement.[7]

Table I-3

Student Demographics: College in the High School Compared With All 11th and 12th Grades in Schools With College in the High School

	All 11th and 12th Grades	College in the High School
Caucasian	80%	76%
Asian American	8%	10%
Hispanic	8%	6%
African American	2%	1%
Native American	1%	<1%
Minority	19%	18%
Non-Asian Minority	11%	7%

WSIPP High School Survey 2001, 41 schools reporting CIHS enrollment

---

[6] Only 41 schools (20 percent) provided information on student enrollment in College in the High School.

[7] The differences among student groups enrolled in College in the High School were found to be statistically significant using a chi-square test at the p<.05 confidence level. However, the proportion of Caucasian and Native American students in College in the High School compared with overall 11th and 12th grades is not significantly different. Differences for other student groups are statistically significant.

Schools Reporting Neither Advanced Placement Nor College in the High School Enrollment. Just over one-third (74 or 36 percent) of the high schools reported no students enrolled in either Advanced Placement or College in the High School courses. The key similarity for these schools was size: over half enrolled fewer than 250 students in 11th and 12th grades (46 high schools). It made no difference whether high schools had large or small proportions of minority students in 11th and 12th grades regarding their offering Advanced Placement or College in the High School classes.[8]

Running Start

Enrollment in Community and Technical Colleges. For fall 2000, 8 percent of all 11th and 12th grade students in the state were enrolled in Running Start.[9] Ninety-eight percent of those students enrolled in community and technical colleges. Demographic data from the four-year universities was not available.

Enrollment in High Schools With Running Start Students. Unlike other college-level learning, Asian American students are not over-represented in Running Start. Asian American students make up 8 percent of Running Start enrollment and 8 percent of overall 11th and 12th grade enrollment in high schools with Running Start students (see Table I-4).[10]

Table I-4

Student Demographics: Running Start Compared With All 11th and 12th Grades in Schools with Running Start

	All 11th and 12th Grades	Running Start
Caucasian	79%	86%
Asian American	8%	8%
Hispanic	7%	3%
African American	4%	2%
Native American	2%	1%
Minority	21%	14%
Non-Asian Minority	13%	6%

SBCTC RS enrollment and OSPI P105 enrollment, Fall 2000, 304 schools[11]

---

[8] Differences among schools based on school size (in terms of whether they did not offer Advanced Placement or College in the High School programs) were found to be statistically significant using a chi-square test at the $p<.05$ significance level. Differences among schools based on percentage of minority enrollment in 11th and 12th grades were not statistically significant.

[9] By the end of the 2000-01 academic year, nearly 10 percent of 11th and 12th grade students had enrolled in Running Start. However, breakdowns of enrollment by ethnicity and high school were only available for this report for fall 2000.

[10] The differences among student groups enrolled in Running Start were found to be statistically significant using a chi-square test at the $p<.05$ confidence level. However, the proportion of Asian American students in Running Start compared with overall 11th and 12th grades is not significantly different. Differences for other student groups are statistically significant.

[11] The SBCTC reported Running Start enrollment from 363 high schools, but matching OSPI records could be located for only 304 high schools. The SBCTC data also contained about 500 students with unknown ethnicity. OSPI does not have an "unknown" category, so these records are not included.

International Baccalaureate

Only three schools responding to the survey offer an International Baccalaureate program. Because International Baccalaureate is a multi-course program of study, a larger proportion of students in a high school would be expected to enroll. Table I-5 shows the percentage of each school's 11th and 12th grade students enrolled in International Baccalaureate.

Table I-5
Student Enrollment in International Baccalaureate

	Percent of 11th and 12th Grade Students
School A	93%
School B	61%
School C	47%

WSIPP High School Survey 2001, 3 schools

Two of the schools have a lower-than-average percentage of minority students in 11th and 12th grades compared with other high schools in the state. In all three schools, half the minority population is Asian American. These small numbers do not permit any credible analysis of student demographics in the International Baccalaureate program.

Summary and Limitations

The high school survey responses suggest that, based on ethnicity, some groups of students are more likely to be enrolled in college-level learning than others.

- Caucasian students are over-represented in Advanced Placement and Running Start compared with their enrollment in 11th and 12th grades (in other words, a greater proportion of Caucasian students enroll in these programs than would otherwise be expected). They are not over-represented in College in the High School.
- Asian American students are over-represented in Advanced Placement and College in the High School, but not in Running Start.
- A smaller proportion of African American, Hispanic, and Native American students are enrolled in college-level learning than are enrolled in 11th and 12th grades. The only exception is Native American students are not under-represented in College in the High School (but the number of students reported in the surveys is very small).
- As the proportion of minority students in the high school increases, the proportion of those students who participate in Advanced Placement decreases. However, whether a school has a large or small proportion of minority students does not make a difference in terms of offering Advanced Placement or College in the High School as an option for students.

- Information on enrollment in International Baccalaureate is too limited to permit analysis.

This analysis is subject to limitations and should be interpreted with caution:

- Out of 328 surveyed high schools, 62 percent responded and 39 percent (129 schools) reported enrollment in college-level learning classes other than Running Start. Some schools not reporting enrollment may not offer college-level learning; others may have chosen not to complete this section of the survey. Although the responding schools are representative of high schools across the state, it is possible the data analyzed for this study does not accurately represent statewide student enrollment in college-level learning.

- It is likely that students enrolled in more than one Advanced Placement or College in the High School class were reported more than once. This overstates the proportion of students enrolled in college-level learning. It may or may not affect the analysis of student demographics by ethnicity.

- Differences in reporting between OSPI and the SBCTC may skew the proportion of minority students enrolled in Running Start. The SBCTC allows colleges to report "unknown" and "other" groups of students, making it difficult to combine records from both sources.

If policymakers wish to monitor student enrollment in college-level learning or adopt policies encouraging students to enroll in these learning opportunities, a more complete accounting of student enrollment and student demographics could be required from high schools and collected by OSPI.

APPENDIX J: STATE SUPPORT FOR COLLEGE-LEVEL LEARNING

Thirty-nine states (including Washington) have adopted policies or provide funding to support programs where students can earn both high school and college credit, called college-level learning (see Table J-1).[1] This analysis focuses on three types of college-level learning programs:

- **Advanced Placement:** Advanced Placement classes are taught by high school teachers using a national curriculum developed by the College Board (a non-profit organization that administers the Advanced Placement examinations). For a fee, students can take the examination and, depending on their score, apply to a college or university for credit.
- **Dual Enrollment:** In Washington, the Running Start program allows high school students to enroll directly in courses at community and technical colleges (and three four-year universities) to obtain high school and college credit simultaneously. Other states offer similar programs under different names.
- **Credit Validation:** High schools can make arrangements with a college or university to offer a course in the high school where students can also earn credit at the sponsoring college. In Washington, this opportunity is called College in the High School.

Advanced Placement

Weighted Grades. Four states have adopted policies to assign a higher weight in a student's overall grade point average (GPA) for Advanced Placement courses to encourage students to take more challenging courses.[2] In Washington, students in the Institute's case study schools advocated such a policy, and teachers and students have testified to the legislature that competition for college admission and scholarships based on a student's GPA creates a disincentive for students to take courses where they might earn a lower grade even though they could benefit from more challenging material.[3]

However, the Higher Education Coordinating Board (HECB) has expressed concern that weighting grades for Advanced Placement could create pressure to weight other honors courses and contribute to grade inflation. In addition, the weighting policy of the University of California may have contributed to a lawsuit being filed by the American Civil Liberties Union. The lawsuit alleged that students in schools with few opportunities to enroll in Advanced Placement courses were unfairly discriminated against in college admissions.[4]

---

[1] Sources: Kimberly Crooks, *State Enhancement of College-Level Learning for High School Students*, University of New York at Buffalo, dissertation, 1998; Education Commission of the States, *Advanced Placement Courses and Examinations*, ECS Clearinghouse, January 2000; The College Board, *Federal and State Support for Advanced Placement*, <http://www.collegeboard.org/ap/stateinit>.

[2] California is included in this list even though the policy was adopted by the University of California Board of Regents, which governs the system of higher education in California, rather than the state legislature.

[3] Testimony before the Senate Education Committee, March 2001.

[4] Memo from Doug Scrima, HECB, to Senate Education Committee, March 30, 2001. For more information on the ACLU lawsuit, see Appendix I.

Mandates to Colleges or High Schools. Nine states have directed public colleges and universities to accept Advanced Placement examination scores on a uniform basis.[5] In Washington, each higher education institution, and often each academic department, determines what exam score will qualify for college credit and how many credits the student will receive. A survey of policies by the Council of President's Office in 1998 showed variation by academic department within colleges and universities, although most accepted an Advanced Placement score of 3.[6] However, regardless of variation in policies for college *admissions*, all public two- and four-year institutions will accept an Advanced Placement score of 3 or better for college *transfers* if the credit already appears on a student's college transcript.[7]

Six states mandate that all high schools in the state make Advanced Placement courses available for students. Washington does not have such a policy.

Special Funding for Programs. A number of states provide grants for professional development to expand the number of teachers qualified to teach college-level material (17 states) or purchase equipment and supplies, such as advanced laboratory equipment (14 states). In the 1999–2001 biennium, Washington provided $500,000 to support these types of activities, but only for courses offered via the Internet.[8]

Instead of (or in addition to) providing grants to high schools, eight states appropriate special state funds for Advanced Placement on a formula basis. Some states make the funds available to all schools based on overall student enrollment; others pay an incentive to schools based on the number of students enrolled in Advanced Placement or the number who score well on the exams.

Incentives for Students. Fifteen states provide state funding to offset the cost of taking Advanced Placement exams. Sometimes this support is only for low-income students; in other states, all students benefit to some degree. In Washington, only federal funds are available for this purpose.

Dual Enrollment (e.g., Running Start)

State-Created Programs. Thirty states, including Washington, have officially created dual enrollment programs where high school students can enroll directly in a college or university and receive both high school and college credit for courses. In creating Running Start, Washington has adopted the following policies to support the program:

- Any 11th or 12th grade student enrolled in a public high school is eligible to participate in Running Start. Students may enroll part-time or full-time in the college or university.

---

[5] The College Board uses a 5-point scale for scoring for Advanced Placement exams. A score of 3 is "qualified" for college-level work.

[6] Council of Presidents' Office "Comparison of Advanced Placement Credit Policies," April 9, 1998.

[7] This policy was jointly adopted by the Interinstitutional Committee of Academic Officers (four-year institutions) and the Instruction Commission Executive Committee (two-year institutions) on December 17, 1998. Memo from Council of Presidents' Office, February 4, 1999.

[8] In addition, Washington (along with 40 other states) has received federal grants to expand availability of college-level learning. However, the focus of this analysis is on state policies and support.

- Colleges can set admissions standards before permitting a high school student to enroll. Community colleges use a placement examination, such as the ASSET test, to determine if students are capable of college-level work. Minimum exam scores vary by college. Some colleges require students to take both the English and mathematics portion of the test; others require only one (depending on the college course to be taken).

- High schools must grant high school credit for successful completion of a course, with five quarter credit hours of college work equal to one high school credit.

Funding for Programs. In ten states (including Washington), the cost of the dual enrollment program is paid by transferring funds from the high school to the college. Fifteen states allow students to be charged tuition. In Washington, colleges receive 93 percent of the state allocation per full-time equivalent student (FTE) enrolled in Running Start, which equaled $81 per credit in 1999–2000. High schools retain 7 percent for administration and counseling. Colleges may not charge tuition to Running Start students, but students pay for supplies, books, and transportation costs.

Requiring transfer of funding from one education system to another is controversial in virtually every state with this policy.[9] Nine states have adopted policies allowing both the school district and the college to claim a dually enrolled student as an FTE in order to minimize the adverse impact of the program on either education system.

Credit Validation (e.g., College in the High School)

State-Created Programs. Only six states have formally adopted a policy supporting or creating programs where courses are taught on the high school campus for college credit. In most states, College in the High School programs are developed by colleges and universities working collaboratively with area high schools. Together the participants determine course offerings, qualifications for teachers, tuition, and credit eligibility specific to each individual program. In Washington, there is no state law pertaining to College in the High School, but guidelines were adopted by the SBCTC in 1997 to assist community and technical colleges with establishing College in the High School programs.[10]

Special Funding for Programs. Only three states, including Washington, have provided special funding to support credit validation programs. In Washington, state funding has been limited to grant funds in the 1999–2001 biennium to expand distance learning for Advanced Placement or College in the High School programs.

---

[9] A 50-state review of dual enrollment programs revealed most school officials objected to transferring funds because they believed it unfairly penalized the high school, made planning and budgeting difficult, and created competition for scarce resources. Kimberly Crooks, *State Enhancement of College-Level Learning for High School Students.*

[10] SBCTC, *Guidelines for College in the High School Programs*, March 3, 1997.

Table J-1

State Policies and Incentives for College-Level Learning

STATES	WA	AL	AZ	AR	CA	CT	CO	FL	GA	1D	IL	IN	IA	KN	KY	LA	ME	MD	MA	MI
Advanced Placement																				
Weight AP grades					X	X														
Mandate colleges accept AP for college credit					X			X	X	X										
Mandate availability of courses												X								
Funding for teacher training	X*			X	X	X		X				X							X	X
Other grants to support	X*			X	X							X			X		X		X	
Incentive funds (based on students enrolled or exams)				X			X	X**							X					
Offset/pay student exam fees				X	X		X	X**	X			X			X					X*
Dual Enrollment Programs (e.g., Running Start)																				
Policy on dual enrollment programs	X		X	X			X	X	X	X	X	X	X	X	X		X	X	X	X
Student pays tuition			X							X	X	X		X	X				X	
School district transfers FTE funds to college	X			X			X		X				X				X	X		
School district AND college claim FTE for dual funding			X					X						X						X
Credit Validation Programs (e.g., College in the High School)																				
Policy on credit validation programs			X							X										
Funding to support program	X*																			

* *Grant funding is for distance learning only*

** *Includes support for International Baccalaureate exams*

BEST COPY AVAILABLE

Table J-1 (continued)

State Policies and Incentives for College-Level Learning

STATES (continued)	MN	MS	MO	NJ	NM	NC	ND	OH	OK	OR	SC	SD	TN	TX	UT	VA	WV	WI	WY	ALL
Advanced Placement																				
Weight AP grades						X					X									**4**
Mandate colleges accept AP for college credit									X		X				X		X	X		**9**
Mandate availability of courses			X								X				X	X	X			**6**
Funding for teacher training	X	X	X		X				X		X			X	X		X			**17**
Other grants to support	X		X		X				X		X			X	X					**14**
Incentive funds (based on students enrolled or exams)									X					X	X		X			**8**
Offset/pay exam fees	X**		X		X				X		X			X				X		**15**
Dual Enrollment Programs (e.g., Running Start)																				
Policy on dual enrollment programs	X	X	X		X	X	X	X	X			X		X	X		X	X	X	**30**
Student pays tuition		X					X		X			X		X	X		X		X	**15**
School district transfers FTE funds	X							X										X		**10**
School district AND College claim FTE for dual funding			X		X	X	X												X	**9**
Credit Validation Programs (e.g., College in the High School)																				
Policy on credit validation programs	X					X				X					X					**6**
Funding to support program	X														X					**3**

* *Grant funding is for distance learning only*

** *Includes support for International Baccalaureate exams*

BEST COPY AVAILABLE

APPENDIX K: GLOSSARY OF SCHOOL-TO-WORK TERMS

Academic-Vocational Integration. The main objective of integration is to improve student achievement by increasing the rigor and relevance of what students learn. Many believe students would be more interested in learning if they had more opportunities to apply their knowledge and skills directly. While many vocational courses use an applied learning approach, many academic courses do not. Two common strategies to integrate academic and vocational curricula are to include more hands-on, practical, and work-related activities in academic courses and to increase the rigor of reading, writing, math, and science taught through vocational courses.

Articulation Agreement. The purpose of articulation is to align the content of high school vocational courses with those offered at a community or technical college so that students can complete an orderly sequence without duplication or gaps. Faculty from the college and the high school create agreements specifying that the content of courses is aligned and meets the technical standards specific to that field. Articulation agreements were the primary output from federal Tech Prep grants during the 1990s.

Career Pathways. Career pathways are clusters of courses and activities organized around broad career themes, such as Health and Human Services, Business, or Science and Engineering. Typically, each pathway includes a range of possible careers, from those a student could enter immediately after graduation to those requiring a four-year or advanced degree. Career pathways are intended to encourage all students to explore and prepare for their post-high school plans without separating them into college-bound or work-bound tracks.

Career Academy. Career academies are the most intensive examples of career pathways where entire high schools or schools-within-schools are organized around a career theme. Career academies aim to accomplish multiple objectives: smaller learning communities to promote supportive learning environments, integration of academic and vocational learning, and partnerships with the community and employers to provide students with work-based learning opportunities.

Cooperative Education (Co-op). Cooperative education combines academic study with paid work for which students may receive high school credit. Established more than 70 years ago in the U.S., co-op is the oldest educational program aiming to help high school students transition from school to work. Students participating in cooperative education have the opportunity to develop workplace skills and to integrate theories learned in the classroom with authentic applications and experiences under the supervision of professional practitioners.

Internship. A student is hired in a paid or unpaid position with the purpose of learning about a particular career and with an opportunity to practice and learn skills through guidance from mentors at the workplace. Internships may be full-time or part-time, and their duration depends on individual arrangements between the student and the needs of the workplace.

Job Shadow. Job shadows allow students to observe a person working in a job within a career of interest so students can learn more about the job, its qualifications, and the working environment. Some schools actively encourage students to do job shadows by setting aside a school day for this purpose and assisting students with finding a willing business participant.

SCANS Skills. Responding to criticisms about the general employability of the workforce, the United States Secretary of Labor appointed the Secretary's Commission on Achieving Necessary Skills (SCANS). In 1991, SCANS identified a range of skills all workforce participants should have, including basic skills (reading, writing, arithmetic, speaking), thinking skills (decision making, problem solving, reasoning), and personal qualities (responsibility, self-esteem, self-management, integrity/honesty). Since then, many schools have made efforts to incorporate the SCANS skills into the school curriculum.

School Enterprise. In school enterprises, students produce goods or services for sale or for use to people other than the participating students. Examples of high school enterprises are school stores, house building, restaurants, child care, or car repair. Students have the opportunity to develop and apply business, decision-making, and leadership skills.

School-to-Work. The objectives of School-to-Work are very broad: improve students' academic and workforce skills, integrate academic and vocational education, increase work-based learning opportunities, and encourage employers to participate in reforming high schools. School-to-Work was not conceived as a separate educational program but a series of activities and initiatives to support students' successful transition beyond high school. In Washington, School-to-Work activities have been implemented using state and federal funds.

Skill Standards. Skill standards are definitions of what students should know and be able to do for vocational and technical courses. As part of Washington's School-to-Work initiative, community colleges, high schools, and employers developed skill standards in such fields as information technology and business and marketing. The involvement of businesses in developing skills standards helps ensure training programs provide the knowledge and skills employers expect in a particular field.

Tech Prep. Tech Prep programs were intended to combine two years of secondary education with two or four years of higher education in a sequence of courses leading to an associate's degree, professional certificate, or baccalaureate degree in a specific technical field (e.g., 2+2 and 2+2+2 programs). The overall intent of Tech Prep is to encourage students who are interested in technical fields to pursue advanced training that could lead to a well-paying career.

Work-Based Learning. Work-based learning encompasses a variety of activities that enable students to learn workplace skills, explore careers, and apply what they are learning in school by experiencing a working environment. Examples of work-based learning include internships, job shadows, or apprenticeships.

Youth Apprenticeship. Students may qualify for occupational certification by participating in youth apprenticeships. These programs link high school with a structured work experience and are purported to provide advantages that may include higher academic achievement, greater chance of employment or entry to post-secondary education, and higher than average earnings.